GOODYKOOTZ'S

Manual.

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Jasper Woodyard Co.

GOODYKOONTZ'S

AND

GENERAL REFERENCE MANUAL.

COMPILED AND PEN-WRITTEN BY
JASPER GOODYKOONTZ.

A BOOK FOR THE MILLIONS.

SR

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GOODYKOONTZ'S PERPETUAL CALENDAR AND GENERAL REFERENCE MANUAL.

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JANUARY

January is named from the Roman *Janus*, who was the Porter of heaven. He presided over the beginning or opening of everything, hence, the first month of the year was named after him. January was added to the list of months by Numa Pompilius, 672 B.C. Among the Romans, on the first of this month all enmities were suspended, presents were exchanged, officers were installed, etc. Thus ancient was the origin of New Year's [illegible]

FEBRUARY

February is derived from *Februa*, the Roman festival of general expiation and lustration, which was celebrated during the latter part of this month. It was added to the list of months by Numa, 672 B.C. Every fourth year February has 29 days instead of 28, and such years are called "bissextile" or "leapyears". In this month the Lupercalia were held among the Romans. It is the month of harvest in Upper Egypt.

MARCH

March is named from *Mars*, the Roman god of war. It was the first month in the early calendar, and the legal year began with March 25th until the change from Old to New Style in the year 1752. The value of March weather is expressed in the sayings, "A peck of March dust is worth a king's ransom." "March comes in like a lion, and goes out like a lamb." Harvest month in India.

APRIL

The derivation of April is unknown, yet there is a traditional etymology, *omnia aperit*, "it opens everything," as spring and the buds generally open in this month. All-Fools' Day (April 1) is traced through every country of Europe to the Hindoos, and even farther back—to the mistake of Noah in sending the dove out of the ark before the water had abated, on the Hebrew first day of the month.

MAY

May is probably derived from *Maia*, a feminine divinity worshipped at Rome, to whom sacrifices were offered on the first day of May. The custom of observing May-day, or the first day of May, with floral and festive ceremonies, is older than the Middle Ages. The May-Pole was once general in England, the young people going out before sunrise to gather flowers to adorn it.

JUNE

June has commonly been traced to *Juno*, worshipped at Rome as the queen of heaven. The connection is found in the fact that the month of June was considered the most favorable period for marrying, and Juno was believed to preside over marriage. The summer solstice occurs in this month, and in the north temperate zone it is the most pleasant month of the year. Harvest month in South U.S.

JULY

July derives its name from *Julius Caesar*, who was born on the 12th of the month. It was originally called *Quintilis*, from its having been the fifth month in the original Latin year, which began with March. This is the month of "dog days," reckoned as commencing on the 3d, and ending on the 11th of August, during which period the extreme heat of summer prevails. Harvest month in most countries in [illegible]

AUGUST

August owes its name to *Augustus Caesar*, who followed his illustrious predecessor by appropriating a month to himself. In the original Latin year it was called *Sextilis*, from its being the sixth month. It originally contained 30 days, but to gratify the vanity of Augustus, one day was taken from February and added to August, so as to make his month equal in extent and dignity to the month of Julius Caesar—July.

SEPTEMBER

September is so called from the Latin *Septem*, seven, because it was the 7th month of the Roman year. This is the harvest month throughout large areas of the globe. Harvest moon is the full moon nearest the autumnal equinox (Sept. 21), so called because it enables farmers to prolong the day's work during the autumnal harvest; especially favorable in the north.

OCTOBER

October was the eighth month of the Roman calendar, which has given rise to the following:

"October has its name from *octo*, eight;
Though 'tis the truth, perhaps 'tis well to state,
Such sixes and such sevens the months were knocked to
That ten became translated into *octo*."

The changing of the forests to the gorgeous and many-colored hues of autumn is characteristic of Octo[illegible]

NOVEMBER

November was formerly the ninth month, now the eleventh. From *novem*, nine. This month is redeemed almost every year from its cold and blustering character, by the delightful weather known as Indian Summer, when for days or weeks the sun pours its rays mildly through a haze, rendering the air soft and genial. This month is also noted for its time-honored festival known as Thanksgiving.

DECEMBER

December is derived from *decem*, ten, as it was formerly the tenth month. The longest nights and shortest days occur during this month, the winter solstice falling on the 21st. As the month of the Christmas holidays, which continue from Decem. 24 to Jan. 2, its cold winds and gloomy atmosphere are enlivened with the joyousness and charity of the greatest festival in the year.

YEAR-DAY

The Year is the period of time in which the earth performs a revolution in its orbit around the sun. It consists of 365 days 5 hours 48 minutes, and 46 seconds of mean solar time. The Day is the interval of time which elapses between two consecutive returns of the same terrestrial meridian to the sun. The Week is a period of seven days, having no reference to the celestial motions—a circumstance to which it owes its unalterable uniformity.

WEEK SEE ABOVE

RIVER OF TIME

THE RIVER OF TIME CARRIES INTO ETERNITY TWO HUMAN BEINGS EVERY SECOND; 120 EVERY MINUTE; 7200 EVERY HOUR; 172,800 EVERY DAY; 63,072,000 EVERY YEAR; AND MORE THAN 200,000,000,000 SINCE THE ADVENT OF MAN ON THE EARTH 4004 B.C.

A CALENDAR FOR ALL PEOPLE AND FOR ALL TIME.

GOODYKOONTZ'S PERPETUAL CALENDAR

An instantaneous reference calendar from which the complete and correct calendar for any year, either old or new style, before or after Christ, may be instantly found.

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YEARS OF THE CENTURIES.

CENTURIES, B.C. AND A.D. — CENTURY LETTERS AND DIRECTION OF READING.

	A	B	C	D	E	F	G
	O.S. 1400 - 5A	O.S. 1600 - 3A	O.S. 1800 - 1A	O.S. 1900 - 7A	O.S. 1700 - 2A	O.S. 1500 - 4A	O.S. 1300 - 6A
	N.S. 1700 - 6	N.S. 1800 - 4	N.S. 1900 - 2	N.S. 2000 - 7A	.....	.....	.....
4000	1 - 4	1 - 5	1 - 6	1 - 7	1 - 1	1 - 2	1 - 3
3900	2 - 5	2 - 6	2 - 7	2 - 1	2 - 2	2 - 3	2 - 4
3800	3 - 6	3 - 7	3 - 1	3 - 2	3 - 3	3 - 4	3 - 5
3700	4 - 3A	4 - 1A	4 - 2	4 - 3A	4 - 4	4 - 5	4 - 6
3600	5 - 4	5 - 5	5 - 6	5 - 7	5 - 7A	5 - 1	5 - 2
3500	6 - 5	6 - 6	6 - 7	6 - 1	6 - 2	6 - 3	6 - 4
3400	7 - 6	7 - 7	7 - 1	7 - 2	7 - 3	7 - 4	7 - 5
3300	8 - 7	8 - 1	8 - 2	8 - 3	8 - 4	8 - 5	8 - 6
3200	9 - 1	9 - 2	9 - 3	9 - 4	9 - 5	9 - 6	9 - 7
3100	10 - 2	10 - 3	10 - 4	10 - 5	10 - 6	10 - 7	10 - 1
3000	11 - 3	11 - 4	11 - 5	11 - 6	11 - 7	11 - 1	11 - 2
2900	12 - 4	12 - 5	12 - 6	12 - 7	12 - 1	12 - 2	12 - 3
2800	13 - 5	13 - 6	13 - 7	13 - 1	13 - 2	13 - 3	13 - 4
2700	14 - 6	14 - 7	14 - 1	14 - 2	14 - 3	14 - 4	14 - 5
2600	15 - 7	15 - 1	15 - 2	15 - 3	15 - 4	15 - 5	15 - 6
2500	16 - 1	16 - 2	16 - 3	16 - 4	16 - 5	16 - 6	16 - 7
2400	17 - 2	17 - 3	17 - 4	17 - 5	17 - 6	17 - 7	17 - 1
2300	18 - 3	18 - 4	18 - 5	18 - 6	18 - 7	18 - 1	18 - 2
2200	19 - 4	19 - 5	19 - 6	19 - 7	19 - 1	19 - 2	19 - 3
2100	20 - 5	20 - 6	20 - 7	20 - 1	20 - 2	20 - 3	20 - 4
2000	21 - 6	21 - 7	21 - 1	21 - 2	21 - 3	21 - 4	21 - 5
1900	22 - 7	22 - 1	22 - 2	22 - 3	22 - 4	22 - 5	22 - 6
1800	23 - 1	23 - 2	23 - 3	23 - 4	23 - 5	23 - 6	23 - 7
1700	24 - 2	24 - 3	24 - 4	24 - 5	24 - 6	24 - 7	24 - 1
1600	25 - 3	25 - 4	25 - 5	25 - 6	25 - 7	25 - 1	25 - 2
1500	26 - 4	26 - 5	26 - 6	26 - 7	26 - 1	26 - 2	26 - 3
1400	27 - 5	27 - 6	27 - 7	27 - 1	27 - 2	27 - 3	27 - 4
1300	28 - 6	28 - 7	28 - 1	28 - 2	28 - 3	28 - 4	28 - 5
1200	29 - 7	29 - 1	29 - 2	29 - 3	29 - 4	29 - 5	29 - 6
1100	30 - 1	30 - 2	30 - 3	30 - 4	30 - 5	30 - 6	30 - 7
1000	31 - 2	31 - 3	31 - 4	31 - 5	31 - 6	31 - 7	31 - 1
900	32 - 3	32 - 4	32 - 5	32 - 6	32 - 7	32 - 1	32 - 2
800	33 - 4	33 - 5	33 - 6	33 - 7	33 - 1	33 - 2	33 - 3
700	34 - 5	34 - 6	34 - 7	34 - 1	34 - 2	34 - 3	34 - 4
600	35 - 6	35 - 7	35 - 1	35 - 2	35 - 3	35 - 4	35 - 5
500	36 - 7	36 - 1	36 - 2	36 - 3	36 - 4	36 - 5	36 - 6
400	37 - 1	37 - 2	37 - 3	37 - 4	37 - 5	37 - 6	37 - 7
300	38 - 2	38 - 3	38 - 4	38 - 5	38 - 6	38 - 7	38 - 1
200	39 - 3	39 - 4	39 - 5	39 - 6	39 - 7	39 - 1	39 - 2
100	40 - 4	40 - 5	40 - 6	40 - 7	40 - 1	40 - 2	40 - 3
0	41 - 5	41 - 6	41 - 7	41 - 1	41 - 2	41 - 3	41 - 4
100	42 - 6	42 - 7	42 - 1	42 - 2	42 - 3	42 - 4	42 - 5
200	43 - 7	43 - 1	43 - 2	43 - 3	43 - 4	43 - 5	43 - 6
300	44 - 1	44 - 2	44 - 3	44 - 4	44 - 5	44 - 6	44 - 7
400	45 - 2	45 - 3	45 - 4	45 - 5	45 - 6	45 - 7	45 - 1
500	46 - 3	46 - 4	46 - 5	46 - 6	46 - 7	46 - 1	46 - 2
600	47 - 4	47 - 5	47 - 6	47 - 7	47 - 1	47 - 2	47 - 3
700	48 - 5	48 - 6	48 - 7	48 - 1	48 - 2	48 - 3	48 - 4
800	49 - 6	49 - 7	49 - 1	49 - 2	49 - 3	49 - 4	49 - 5
900	50 - 7	50 - 1	50 - 2	50 - 3	50 - 4	50 - 5	50 - 6
1000	.....	.....	.....	.....	.....	.....	.....

OBSERVATIONS AND EXAMPLES.

To find the calendar for any year, look in the column of centuries at the left for the required century, at the right of which is the Century Letter for New Style (since Sept. 3, 1752), and at the left, the Century Letter for Old Style. These letters direct to corresponding letters at the tops of the double columns, in which are given the years of the centuries. At the right of each year in the double columns is the Calendar Number, directing to the corresponding number of the calendars which follow. All the years of 1800 are given in the second double column under B; all the years of 1900, in the third double column, etc.

Examples.

1.—Find the calendar for 1894.—Look in the column of centuries for 1800; at its right is B, directing to B at the top of the second double column; at the right of 94 in this column is 2, directing to Calendar Number 2, which is the correct calendar for 1894.

2.—On what day was Washington inaugurated President, April 30, 1789? At the right of 1700 (in century column) is A; under A in the first double column, at the right of 89 is 5; in calendar number 5 April 30th is Thursday.

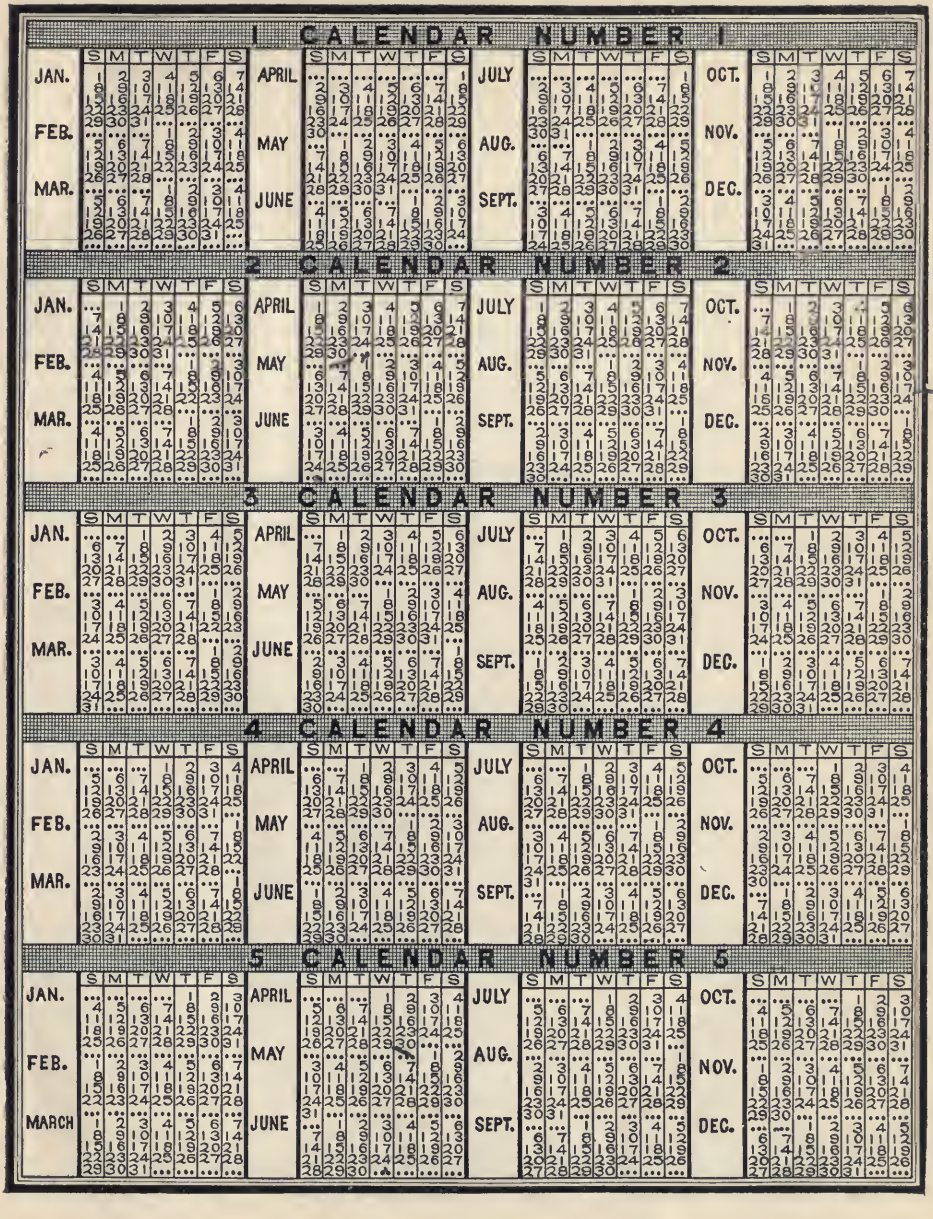
3.—On what day did Columbus discover America, October 12, 1492?—At the left of 1400 (Old Style) is A; under A at the right of 92 is 1A; in calendar number 1A the 12th of October is Friday.

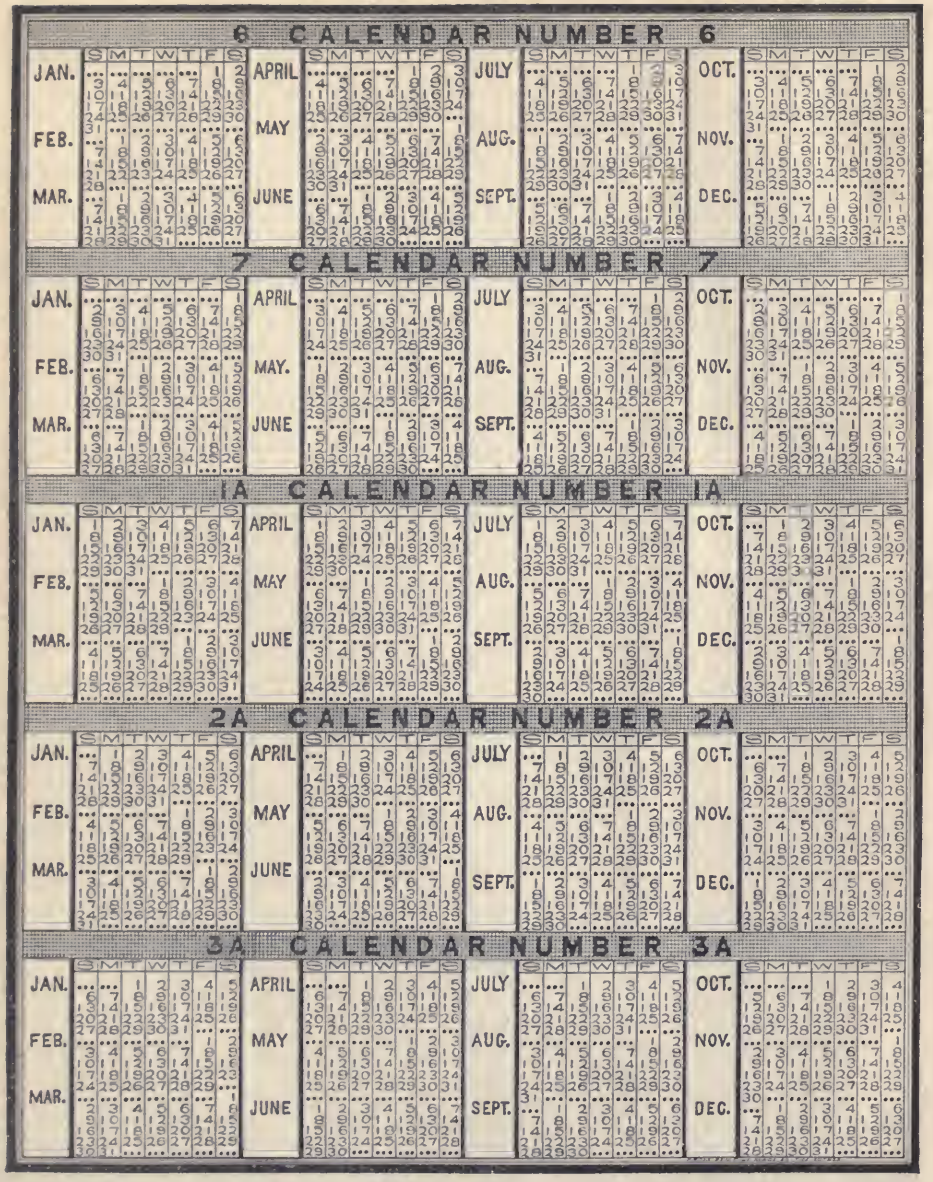
4.—On what day was Christ born, April 5th of the year 4 B.C.?—The years B.C. being reckoned backward, it is necessary to take the year of the century from 100, and use the century letter of the preceding century: thus, 4 (year of century) from 100 leaves 96; century letter for 100 (New Style) is C; under C in the third double column at the right of 96 is 2A; in calendar number 2A the 5th of April is Friday.

5.—Assuming that time has been reckoned according to the present system, On what day did Noah's deluge begin, Dec. 1, 2348 B.C.?—48 from 100 leaves 52, century letter for 2400 (preceding century) is D; calendar number for 52, under D is 2A; the 7th of December was Saturday.

See at the close of calendars number 1A.

RIVER OF TIME


1 CALENDAR NUMBER 1
JAN.
FEB.
MAR.
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.
2 CALENDAR NUMBER 2
JAN.
FEB.
MAR.
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.
3 CALENDAR NUMBER 3
JAN.
FEB.
MAR.
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.
4 CALENDAR NUMBER 4
JAN.
FEB.
MAR.
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.
5 CALENDAR NUMBER 5
JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.


6 CALENDAR NUMBER 6
7 CALENDAR NUMBER 7
1A CALENDAR NUMBER 1A
2A CALENDAR NUMBER 2A
3A CALENDAR NUMBER 3A
JAN.
FEB.
MAR.
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.

4A CALENDAR NUMBER 4A

JAN.	S	M	T	W	T	F	S
	...	...	...	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	...

FEB.	S	M	T	W	T	F	S
	...	...	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29

MAR.	S	M	T	W	T	F	S
	...	...	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	...	...	...	...	...

APRIL	S	M	T	W	T	F	S
	...	...	...	...	...	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	...	...	...

MAY	S	M	T	W	T	F	S
	...	...	...	...	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

JUNE	S	M	T	W	T	F	S
	...	...	...	...	...	...	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	...	...	...	...	...	...

JULY	S	M	T	W	T	F	S
	...	...	...	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	...

AUG.	S	M	T	W	T	F	S
	...	...	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	...	...	...	...	...

SEPT.	S	M	T	W	T	F	S
	...	...	...	...	...	...	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	...	...	...	...	...	...

OCT.	S	M	T	W	T	F	S
	...	...	...	...	...	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

NOV.	S	M	T	W	T	F	S
	...	...	...	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	...	...

DEC.	S	M	T	W	T	F	S
	...	...	...	...	...	...	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	...	...	...	...	...	...

5A CALENDAR NUMBER 5A

JAN.	S	M	T	W	T	F	S
	...	...	...	...	...	...	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	...	...	...	...	...	...

FEB.	S	M	T	W	T	F	S
	...	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	...	...	...	...	...	...

MAR.	S	M	T	W	T	F	S
	...	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31	...	...	...

APRIL	S	M	T	W	T	F	S
	...	...	...	...	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	...

MAY	S	M	T	W	T	F	S
	...	...	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	...	...	...	...	...

JUNE	S	M	T	W	T	F	S
	...	...	...	...	...	...	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	...	...	...

JULY	S	M	T	W	T	F	S
	...	...	...	...	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

AUG.	S	M	T	W	T	F	S
	...	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31	...	...	...	...

SEPT.	S	M	T	W	T	F	S
	...	...	...	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	...	...

OCT.	S	M	T	W	T	F	S
	...	...	...	...	...	...	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	...	...	...	...	...	...

NOV.	S	M	T	W	T	F	S
	...	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	...	...	...	...

DEC.	S	M	T	W	T	F	S
	...	...	...	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	...

6A CALENDAR NUMBER 6A

JAN.	S	M	T	W	T	F	S
	...	...	...	...	...	1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	...	...	...	...	...	...

FEB.	S	M	T	W	T	F	S
	...	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	...	...	...	...	...

MAR.	S	M	T	W	T	F	S
	...	...	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31	...	...

APRIL	S	M	T	W	T	F	S
	...	...	...	...	...	...	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30

MAY	S	M	T	W	T	F	S
	...	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31	...	...	...	...

JUNE	S	M	T	W	T	F	S
	...	...	...	...	...	...	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	...	...

JULY	S	M	T	W	T	F	S
	...	...	...	...	...	1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	...	...	...	...	...	...

AUG.	S	M	T	W	T	F	S
	...	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31	...	...	...

SEPT.	S	M	T	W	T	F	S
	...	...	...	...	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	...

OCT.	S	M	T	W	T	F	S
	...	...	...	...	...	...	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	...	...	...	...	...

NOV.	S	M	T	W	T	F	S
	...	...	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	...	...	...

DEC.	S	M	T	W	T	F	S
	...	...	...	...	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

7A CALENDAR NUMBER 7A

JAN.	S	M	T	W	T	F	S
	...	...	...	...	...	...	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	...	...	...	...	...

FEB.	S	M	T	W	T	F	S
	...	...	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	...	...	...	...

MAR.	S	M	T	W	T	F	S
	...	...	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31	...	...

APRIL	S	M	T	W	T	F	S
	...	...	...	...	...	...	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30

MAY	S	M	T	W	T	F	S
	...	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31	...	...	...	...

JUNE	S	M	T	W	T	F	S
	...	...	...	...	...	...	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	...	...

JULY	S	M	T	W	T	F	S
	...	...	...	...	...	...	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	...	...	...	...	...	...

AUG.	S	M	T	W	T	F	S
	...	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31	...	...	...

SEPT.	S	M	T	W	T	F	S
	...	...	...	...	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	...

OCT.	S	M	T	W	T	F	S
	...	...	...	...	...	...	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	...	...	...	...	...

NOV.	S	M	T	W	T	F	S
	...	...	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	...	...	...

DEC.	S	M	T	W	T	F	S
	...	...	...	...	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

NOTES ON THE CALENDAR.

The century letters, at the right of the column of centuries, are given both A.D. and B.C. In New Style in order to represent regular succession of time from the advent of man on the earth, 4004 B.C., until the present, and all future time.

To find the century letter for any century beyond those given in the column of centuries, it is only necessary to remember that every centesimal leap-year (every centesimal year divisible by 400) has D for its century letter; then the next century, A; then B and C, and so on forever; thus, 8400 has D; 8500, A; 8600, B; 8700, C; 8800, D; etc.

If it be desirable to use the Old Style century letters beyond those given at the left of the column of centuries, repeat them in the same order as given.

There are two methods of reckoning the years B.C. known as the "Astronomers' Method," and the "Chronologers' Method." The former method is used in this Calendar, as it represents regular succession of years from B.C. to A.D., while the latter does not. The difference between the two methods may be seen from the following illustration:

B.C.	A.D.
5432101	2345=Astronomers' Method.
5432112	345 =Chronologers' Method.

The years B.C. and A.D. are reckoned from the point 0(0-year) the same as the degrees on the scale of a thermometer are reckoned above and below 0(0-degree).

There have been two defects in Perpetual Calendars that have heretofore rendered them impracticable for general use; viz., The liability to find the incorrect date, and the time required to point out any given date.

Should any one feel disposed to discredit the accuracy of this calendar, if he will furnish proof of such, he will be amply rewarded for his trouble.

The calendar for any year may be found within the limit of six seconds.

ERAS COMPARED.

CENTURIES OF DECLARATION OF INDEPENDENCE OF U.S.A.	CENTURIES OF THE JEWISH ERA.	CENTURIES OF THE MUNDANE ERA (Usher).	CENTURIES OF THE JULIAN PERIOD.	CENTURIES OF THE CHRISTIAN ERA.	CENTURY LETTERS-NEW STYLE
1	524	7081	7304	3012	2300 A
	1424	6981	7204	7913	3200 D
	1324	6881	7104	7813	3100 C
	1224	6781	7004	7713	3000 B
	1124	6681	6904	7613	2900 A
	1024	6581	6804	7513	2800 D
	924	6481	6704	7413	2700 C
	824	6381	6604	7213	2600 B
	724	6281	6504	7213	2500 A
	624	6181	6404	7113	2400 D
	524	6081	6304	7013	2300 C
	424	5981	6204	6913	2200 B
	324	5881	6104	6813	2100 A
	224	5781	6004	6713	2000 D
	124	5681	5904	6613	**1900 C**
	24	5581	5804	6513	1800 B
	....	5481	5704	6413	1700 A
	....	5381	5604	6313	1600 D
	....	5281	5504	6213	1500 C
AMERICA DISCOVERED	....	5161	5404	6113	**1400 B**
	....	5061	5304	6013	1300 A
	....	4961	5204	5913	1200 D
	....	4861	5104	5813	1100 C
CHARLES II. RETURNS FROM EXILE	....	4761	5004	5713	**1000 B**
	....	4661	4904	5613	900 A
	....	4561	4804	5513	800 D
	....	4461	4704	5413	700 C
	....	4361	4604	5313	600 B
FALL OF ADAM	....	4261	4504	5213	500 A
	....	4161	4404	5113	400 D
	....	4061	4304	5013	300 C
	....	3981	4204	4813	200 B
	....	3881	4104	4813	A100 A
BIRTH OF CHRIST		**3761**	**4004**	**4713**	**O D**
	....	3661	3904	4613	100 C
	....	3561	3804	4513	200 B
	....	3461	3704	4413	300 A
SOCRATES LIVES	....	3361	3604	4313	400 D
	....	3261	3504	4213	500 C
	....	3161	3404	4113	600 B
ADAM CREATED	....	3061	3304	4012	**700 A**
	....	2961	3204	3913	800 D
	....	2861	3104	3813	900 C
	....	2761	3004	3713	**1000 B**
	....	2661	2904	3613	1100 A
TROY TAKEN	....	2561	2804	3513	1200 D
	....	2461	2704	3413	1300 C
	....	2361	2604	3313	1400 B
BIRTH OF MOSES	....	2261	2504	3213	1500 A
	....	2161	2404	3113	1600 D
	....	2061	2304	3013	1700 C
ROME SOLD	....	1961	2204	2913	1800 B
	....	1861	2104	2813	1900 A
TROY BORN	....	1761	2004	2713	2000 D
	....	1661	1904	2613	2100 C
	....	1561	1804	2513	2200 B
	....	1461	1704	2413	**2300 A**
	....	1361	1604	2313	2400 D
	....	1261	1504	2213	2500 C
	....	1161	1404	2113	2600 B
	....	1061	1304	2013	2700 A
	....	961	1204	1913	2800 D
METHOD OF NOAH	....	861	1104	1812	2900 C
	....	761	1004	1713	3000 B
	....	661	904	1613	3100 A
	....	561	804	1513	3200 D
METHUSELAH DIED	....	461	704	1413	3300 C
METHUSELAH BORN	....	361	604	1313	3400 B
CAIN	....	261	504	1213	3500 A
	....	161	404	1113	3600 D
	....	61	304	1013	3700 C
ABEL MURDERED	....	....	204	913	3800 B
	....	....	104	813	3900 A
THE CREATION		**1**	**4**	**713**	**4000 D**
	....	....	....	613	4100 C
	....	....	....	513	4200 B
	....	....	....	413	4300 A
	....	....	....	313	4400 D
	....	....	....	213	4500 C
	....	....	....	113	4600 B
JULIAN PERIOD BEGINS			**12**	**4700**	**A**

NOTES ON THE ERAS.

The Christian era commenced on Saturday (Old Style), January 1st of the year 1 A.D. The first **Julian Period** commenced January 1, 4713 B.C., and ends January 1, 3268 A.D., is consisting of 7980 years. It is used to avoid ambiguities in chronological dates. The **Mundane era** commenced with October 4004 B.C. The **Jewish era** commenced with October 3761 B.C. The **era of the Declaration of Independence** commenced July 4, 1776 A.D. The **Mohammedan era** commenced on Friday, July 16, 622 A.D. Its centuries cannot be shown with those at the left, owing to its different length. See *Mohammedan Calendar* elsewhere in this book. To find the year of the century of any of the other eras corresponding to any given year of the Christian era, add the year of the century to the number of the other century found opposite to the Christian century. Thus, the year of the Jewish era corresponding to 1894 of the Christian era is 5581 (the Jewish number opposite to 1800) + 94 = 5655.

MOVABLE FESTIVALS.

To find the day of the month upon which any of the following festivals occurs for any given year, select the date of Easter for the required year from the table below, then select the calendar for the given year from the Perpetual Calendar.

Septuagesima	9th Sun. before Easter.	
Sexagesima	8th "	"
Quinquagesima	7th "	"
Shrove Tues.	7th Tues.	"
Ash Wed.	7th Wed.	"
First Sun. in Lent	6th Sun.	"
Second "	5th "	"
Third "	4th "	"
Fourth "	3rd "	"
Fifth "	2nd "	"
Palm Sunday	1st "	"
Good Friday	1st Friday	"
Maundy Thur.	1st Thur.	"
EASTER SUNDAY, see Table.		
Low Sunday	1st Sun. after Easter.	
Rogation Sun.	5th "	"
Ascension Day	6th Thur.	"
Whit Sun. or Pentecost	7th Sun.	"
Trinity Sun.	8th "	"
Corpus Christi	9th Thur.	"
First Sun. in Adv's	4th Sun. bef. Christmas.	
Second "	3rd "	"
Third "	2nd "	"
Fourth "	1st "	"

CHRISTMAS, December 25 (Not movable).

FIXED FESTIVALS, HOLIDAYS.

JANUARY 1, New Year's and Circumcision; **6**, Epiphany.

FEBRUARY 2, Purification; 14, St. Valentine's Day; 22, Washington's Birthday; 24, St. Matthias' Day.

MARCH 17, St. Patrick's Day; 25, Annunciation, or Lady Day.

APRIL 23, St. George's Day; 25, St. Mark's Day.

MAY 1, St. Philip's and St. James' Day; 30, Memorial Day.

JUNE 11, St. Barnabas' Day; 24, St. John Baptist's Day; 29, St. Peter's Day.

JULY 4, Independence Day; 25, St. James' Day.

AUGUST 24, St. Bartholomew's Day.

SEPTEMBER, first Monday, Labor Day; 21, St. Matthew's Day; 29, Michaelmas.

OCTOBER 18, St. Luke's Day; 28, St. Simon's and St. Judes' Day; 31, Hallowe'en.

NOVEMBER 1, All Saints' Day; first Tuesday after first Monday, General Election Day; last Thursday, Thanksgiving Day; 30, St. Andrew's Day.

DECEMBER 6, St. Nicholas' Day; 21, St. Thomas' Day; 25, Christmas Day; 26, St. Stephen's Day; 27, St. John Evangelist's Day; 28, Innocents' Day.

EASTER SUNDAY TABLE FOR 600 YEARS.

Previous to 1752 the dates are computed from the Old Style. As Easter can occur only in March and April, March is indicated by M and April by A.

1500 A 19			1600 M 23			1700 M 31			1800 A 13			1900 A 15			2000 A 23		
1	A	11	1	M	29	1	A	12	1	M	30	1	A	20	1	A	5
2	M	27	2	A	17	2	A	4	2	A	18	2	A	11	2	A	1
3	A	16	3	A	2	3	A	24	3	A	10	3	M	28	3	A	21
4	A	7	4	M	25	4	A	8	4	M	26	4	A	16	4	A	1
5	M	23	5	A	14	5	M	31	5	A	15	5	A	8	5	M	30
6	A	12	6	A	5	6	A	20	6	A	6	6	M	24	6	A	18
7	A	4	7	M	22	7	A	12	7	M	29	7	A	13	7	A	5
8	A	23	8	A	10	8	M	27	8	A	11	8	A	4	8	M	26
9	A	8	9	M	29	9	A	16	9	A	3	9	A	24	9	A	15
10	M	31	10	A	14	10	A	8	10	A	22	10	A	9	10	A	6
11	A	20	11	A	6	11	M	24	11	A	14	11	A	1	11	M	22
12	A	11	12	M	29	12	A	12	12	M	30	12	A	20	12	A	11
13	M	27	13	A	11	13	A	4	13	A	19	13	A	5	13	A	3
14	A	16	14	A	3	14	A	24	14	A	10	14	M	28	14	A	22
15	A	8	15	M	25	15	A	9	15	M	26	15	A	17	15	A	7
16	M	23	16	A	14	16	M	31	16	A	15	16	A	1	16	M	30
17	A	12	17	M	30	17	A	20	17	A	7	17	A	21	17	A	19
18	A	4	18	A	18	18	A	5	18	M	22	18	A	13	18	A	3
19	A	24	19	A	10	19	M	28	19	A	11	19	M	29	19	M	26
20	A	8	20	M	26	20	A	16	20	A	3	20	A	17	20	A	15
21	M	31	21	A	15	21	A	1	21	A	23	21	A	9	21	M	31
22	A	20	22	M	31	22	M	25	22	A	19	22	M	25	22	A	19
23	A	5	23	A	23	23	A	13	23	M	30	23	A	13	23	A	4
24	M	27	24	A	11	24	M	28	24	A	19	24	A	5	24	A	3
25	A	16	25	A	7	25	A	17	25	A	4	25	M	29	25	A	18
26	A	1	26	A	22	26	A	9	26	M	26	26	A	10	26	A	7
27	A	21	27	A	7	27	M	25	27	A	15	27	A	2	27	M	30
28	A	12	28	M	30	28	A	13	28	M	31	28	A	21	28	A	11
29	M	28	29	A	19	29	A	5	29	A	20	29	A	9	29	M	27
30	A	17	30	A	3	30	M	28	30	A	11	30	M	25	30	A	23
31	A	9	31	M	26	31	A	10	31	A	3	31	A	18	31	A	15
32	M	31	32	A	15	32	A	1	32	A	16	32	A	9	32	M	31
33	A	13	33	M	31	33	A	21	33	A	8	33	M	25	33	A	20
34	A	5	34	A	19	34	A	6	34	M	30	34	A	14	34	A	11
35	M	28	35	A	11	35	M	29	35	A	19	35	A	6	35	M	28
36	A	18	36	A	6	36	A	17	36	A	4	36	A	25	36	A	16
37	A	1	37	M	27	37	A	2	37	M	27	37	A	10	37	A	8
38	A	21	38	A	7	38	M	25	38	A	15	38	A	2	38	M	23
39	A	6	39	M	30	39	A	14	39	M	31	39	A	12	39	M	31
40	M	28	40	A	19	40	A	5	40	A	20	40	A	4	40	A	19
41	A	17	41	A	4	41	A	25	41	A	12	41	M	29	41	A	1
42	A	9	42	M	26	42	A	10	42	M	27	42	A	18	42	A	8
43	M	25	43	A	15	43	A	2	43	A	16	43	A	1	43	A	25
44	A	13	44	M	31	44	A	21	44	M	25	44	A	20	44	A	16
45	A	5	45	A	20	45	A	6	45	M	24	45	A	14	45	A	5
46	A	25	46	A	11	46	M	29	46	A	12	46	M	30	46	M	27
47	A	10	47	M	27	47	A	18	47	A	4	47	A	19	47	A	17
48	A	1	48	A	16	48	A	2	48	A	24	48	A	10	48	A	9
49	A	21	49	A	8	49	M	25	49	A	9	49	M	26	49	M	24
50	A	8	.....			50	A	14	.....			50	A	15	.....		

1800 A 13			1900 A 15			2000 A 23		
1	A	5	1	A	7	1	A	15
2	A	18	2	M	30	2	M	31
3	A	10	3	M	27	3	A	20
4	A	1	4	A	16	4	A	11
5	A	14	5	A	8	5	M	27
6	A	6	6	A	23	6	A	16
7	A	22	7	M	31	7	A	8
8	A	14	8	A	19	8	M	23
9	A	3	9	A	11	9	A	12
10	A	22	10	A	4	10	M	27
11	A	11	11	M	23	11	A	16
12	A	2	12	A	12	12	A	8
13	A	18	13	A	5	13	M	23
14	A	10	14	A	20	14	A	4
15	A	6	15	A	1	15	A	24
16	A	25	16	M	27	16	A	16
17	A	17	17	A	16	17	A	8
18	A	9	18	A	8	18	M	31
19	A	1	19	M	24	19	A	20
20	A	21	20	A	13	20	A	12
21	A	6	21	A	5	21	A	4
22	A	25	22	A	17	22	M	23
23	A	13	23	A	9	23	A	13
24	A	5	24	A	1	24	A	31
25	A	18	25	M	28	25	A	20
26	A	10	26	A	17	26	A	5
27	A	2	27	A	9	27	M	28
28	A	14	28	A	1	28	A	16
29	A	6	29	M	24	29	A	8
30	A	25	30	A	13	30	M	31
31	A	17	31	A	5	31	A	13
32	A	9	32	A	17	32	M	28
33	A	1	33	M	25	33	A	17
34	A	21	34	A	14	34	A	9
35	A	6	35	A	6	35	M	25
36	A	25	36	A	18	36	A	16
37	A	17	37	A	10	37	A	1
38	A	2	38	M	29	38	A	21
39	A	14	39	A	7	39	M	29
40	A	6	40	A	22	40	A	18
41	A	25	41	M	26	41	A	10
42	A	10	42	A	15	42	A	2
43	A	2	43	A	3	43	M	29
44	A	21	44	A	11	44	A	6
45	A	5	45	A	23	45	A	25
46	A	25	46	M	31	46	A	17
47	A	17	47	A	20	47	A	9
48	A	9	48	A	12	48	A	1
49	A	1	49	A	4	49	A	21
50	A	13	.....			50	A	10

CHART SHOWING LOCAL TIME FOR EACH OF THE 24 HOURS.

EACH MERIDIAN DRAWN ON THE MAP REPRESENTS 15° OF LONGITUDE, OR ONE HOUR OF TIME.

THE WORLD ROTATES ON ITS AXIS FROM THE WEST TOWARD THE EAST ONCE IN 24 HOURS.

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	180	165	150	135	120	105	90 LONG 75 WEST	60 OF 45 GREE	30 NWI	15 CH	0	15 LONG	30 EAST	45 OF 60 GREE	75 NWI	90 CH	105	120	135	150	165	180
1	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A
2	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM
3	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM
4	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM
5	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM
6	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM
7	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM
8	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM
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11	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM
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13	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼
14	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM
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16	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM
17	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM
18	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM
19	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM
20	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM	5 AM
21	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM	4 AM
22	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM	2 AM	3 AM
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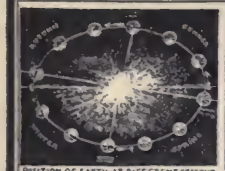
24	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	☼	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 A	1 AM
	180	165	150	135	120	105	90 LONG 75 WEST	60 OF 45 GREE	30 NWI	15 CH	0	15 LONG	30 EAST	45 OF 60 GREE	75 NWI	90 CH	105	120	135	150	165	180

TO USE THE CHART, DESCEND ON YOUR LOCAL MERIDIAN TO THE REQUIRED HOUR OF THE DAY OR NIGHT, THEN PASS TO THE RIGHT OR LEFT; THUS, WHEN IT IS 9 P.M. AT NEW YORK IT IS 10 A.M. IN THE WESTERN PART OF AUSTRALIA.

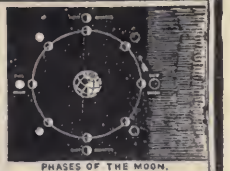
FROM PEN COPY MADE BY THE AUTHOR.



POSITION OF EARTH AT DIFFERENT SEASONS.

Perpetual Sunset and Sunrise Table.

To find the time of sunset or sunrise for any day in any year, find the day of the month (or its nearest approximate) as given under the column of months at the right and left; then pass inward to the column headed by your latitude (or its nearest approximate) where will be found the time of sunset and sunrise. By approximation the exact time may be found. To find the length of the day, double the time of sunset; thus, May 30, in latitude 42°, it is 8 hours 10 minutes long. To find the length of the night, double the time of sunrise; thus, on the above date, the night is 9 hours 44 minutes long. On the same day, as shown by the column "Sun slow or fast," the sun is 4 minutes faster than mean time. After finding your latitude, draw a red line on each side of the column from top to bottom, so as to catch the eye at a glance.



PHASES OF THE MOON.

EACH PEG COPY MADE BY THE AUTHOR.

LATITUDE

COPYRIGHT, 1892, BY JASPER GOODYWOONTZ.

	1°	14′	26′	28′	30′	32′	35′	37′	39′	41′	43′	45′	47′	49′	51′	53′	56′	58′	60′	62′	63′	64′	65′	66°
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
24	6 4	6 28	6 50	6 56	7 0	7 7	7 17	7 22	7 28	7 35	7 42	7 50	7 58	8 7	8 18	8 30	8 51	9 6	9 29	9 57	10 15	10 28	10 47	.....
23	5 56	6 20	6 42	6 48	6 52	6 59	7 9	7 14	7 20	7 27	7 34	7 42	7 50	7 59	8 10	8 22	8 43	8 58	9 21	9 49	10 7	10 20	10 39	.....
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10	4 12	4 36	4 58	5 4	5 8	5 15	5 25	5 30	5 36	5 43	5 50	5 58	6 6	6 15	6 26	6 38	6 59	7 14	7 37	8 5	8 23	8 36	8 55	.....
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8	3 56	4 20	4 42	4 48	4 52	4 59	5 9	5 14	5 20	5 27	5 34	5 42	5 50	5 59	6 10	6 22	6 43	6 58	7 21	7 49	8 7	8 20	8 39	.....
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4	3 24	3 48	4 10	4 16	4 20	4 27	4 37	4 42	4 48	4 55	5 2	5 10	5 18	5 27	5 38	5 50	6 11	6 26	6 49	7 17	7 35	7 48	8 7	.....
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4	2 20	2 44	3 6	3 12	3 16	3 23	3 33	3 38	3 44	3 51	3 58	4 6	4 14	4 23	4 34	4 46	5 7	5 22	5 45	6 13	6 31	6 44	7 3	.....
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23		0 12	0 34	0 40	0 44	0 51	1 1	1 6	1 12	1 19	1 26	1 34	1 42	1 51	2 2	2 14	2 35	2 50	3 13	3 41	3 59	4 12	4 31	.....
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SUN SLOW OR FAST	MONTHS	SUN RISES AND SETS	MONTHS	SUN SLOW OR FAST
2 S	June 21	SETS	June 21	2 S
1 S	June 10		July 2	4 S
2 S	June 1		July 11	5 S
3 S	May 25		July 16	5 S
4 S	May 20		July 23	6 S
4 S	May 16		July 20	6 S
4 S	May 12		Aug. 1	6 S
4 S	May 8		Aug. 5	6 S
3 S	May 4		Aug. 9	5 S
3 S	May 1		Aug. 12	5 S
3 S	Apr. 25		Aug. 15	4 S
2 S	Apr. 25		Aug. 10	4 S
2 S	Apr. 22		Aug. 21	3 S
1 S	Apr. 19		Aug. 24	2 S
0 S	Apr. 16		Aug. 27	1 S
1 S	Apr. 13		Aug. 30	0 S
1 S	Apr. 10		Sep. 1	0 F
2 S	Apr. 8		Sep. 4	1 F
3 S	Apr. 5		Sep. 7	2 F
4 S	Apr. 2		Sep. 11	3 F
4 S	Mar. 31		Sep. 13	4 F
5 S	Mar. 28		Sep. 15	5 F
6 S	Mar. 26		Sep. 18	6 F
6 S	Mar. 24		Sep. 20	7 F
7 S	Mar. 21	SETS	Sep. 23	8 F
8 S	Mar. 18		Sep. 25	8 F
9 S	Mar. 15		Sep. 28	9 F
10 S	Mar. 13		Oct. 1	10 F
10 S	Mar. 10		Oct. 3	11 F
11 S	Mar. 8		Oct. 6	12 F
12 S	Mar. 5		Oct. 8	12 F
12 S	Mar. 2		Oct. 11	13 F
13 S	Feb. 28		Oct. 14	14 F
13 S	Feb. 25		Oct. 16	14 F
14 S	Feb. 23		Oct. 19	15 F
14 S	Feb. 20		Oct. 22	15 F
14 S	Feb. 17		Oct. 25	16 F
14 S	Feb. 14		Oct. 28	16 F
14 S	Feb. 11		Oct. 31	16 F
14 S	Feb. 8		Nov. 3	16 F
14 S	Feb. 5		Nov. 6	16 F
14 S	Feb. 1		Nov. 9	16 F
13 S	Jan. 29		Nov. 13	16 F
13 S	Jan. 25		Nov. 17	15 F
12 S	Jan. 22		Nov. 21	14 F
10 S	Jan. 19		Nov. 26	13 F
7 S	Jan. 9		Dec. 2	10 F
4 S	Jan. 1		Dec. 11	7 F
0	Dec. 21		Dec. 21	2 F

THE SOLAR SYSTEM.

The Solar System consists of the Sun, the eight large planets, the names of which are given at the left, one hundred and forty small planets, a vast number of meteoric bodies, an unknown number of comets, and a ring of nebulous matter known as zodiacal light.

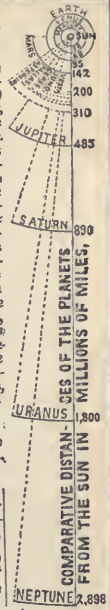
PLANETS.

The planets which move directly around the Sun are called primary planets; those which move around their primaries are called secondary planets, also called moons or satellites. The Earth has 1 satellite; Jupiter, 4; Saturn, 8; Uranus, 6; Neptune, 1. Saturn is also surrounded by a circular belt. The planets move round the Sun from west to east. Their orbits are elliptical, so that they are nearer the Sun at certain times than at others. When nearest the Sun they are in perihelion; when farthest, in aphelion.

Owing to their great distance, the orbits of Uranus and Neptune cannot be shown on this diagram.

THE ASTEROIDS.

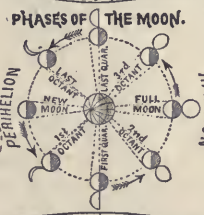
Of the Asteroids or small planets, there are about 140. In dimensions, they are a great deal smaller than the others, the largest not being 230 miles in diameter, while many are less than 50 miles. Their orbits are more elliptical than those of the large planets, and at many places cross each other. They occupy a belt more than 200,000,000 miles in width, between the orbits of Jupiter and Mars, their distance from the Sun ranging from 200,000,000 to 300,000,000 of miles.



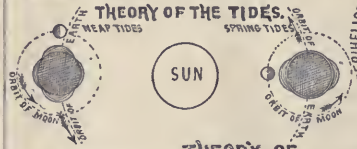
THE PLANETS.

	DIAMETER IN MILES.	LENGTH OF YEAR IN DAYS.	LENGTH OF DAY. H.	M.	HOURLY MOTION. MILES.
MERCURY.	2,962	88	24	5	105,000
VENUS...	7,510	225	23	16	77,050
EARTH...	7,926	365	24	0	65,533
MARS....	4,920	687	24	37	53,000
JUPITER..	87,770	4,323	9	55	28,744
SATURN..	72,980	10,759	10	29	21,221
URANUS..	33,024	30,687	9	30	14,963
NEPTUNE.	36,620	60,127	?		11,958

PHASES OF THE MOON.

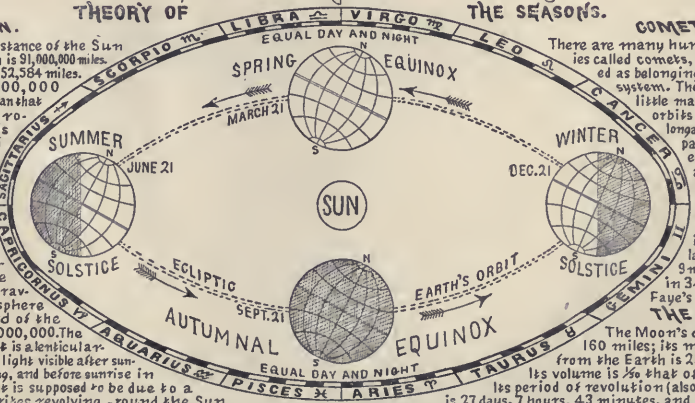


THEORY OF THE TIDES.



ECLIPSES.

THEORY OF THE SEASONS.



THE SUN.

The mean distance of the Sun from the Earth is 91,000,000 miles. Its diameter is 852,584 miles. Its volume is 1,200,000 times greater than that of the Earth. It rotates on its axis once in about 25 days. On the Sun's disc are seen various cavities called Sun-spots.

METEORS.

Meteors are also called bolides or shooting stars. The number that traverse the atmosphere daily is upward of the number, 400,000,000. The **Zodiacal Light** is a lenticular-shaped blush of light visible after sunset in early spring, and before sunrise in early autumn. It is supposed to be due to a ring of meteorites revolving around the Sun.

COMETS.

There are many hundreds of bodies called comets, and recognized as belonging to the solar system. They contain but little matter, and their orbits are greatly elongated. Only a part of the comets have tails, and these are often 150,000,000 of miles in length. Halley's comet revolves in 76 years; Biela's in 6 years, 9 months; Encke's in 3⅓ years; and Faye's in 7½ years.

THE MOON.

The Moon's diameter is 2,160 miles; its mean distance from the Earth is 237,519 miles. Its volume is 1/50 that of the Earth. Its period of revolution (also of rotation) is 27 days, 7 hours, 43 minutes, and 5 seconds.

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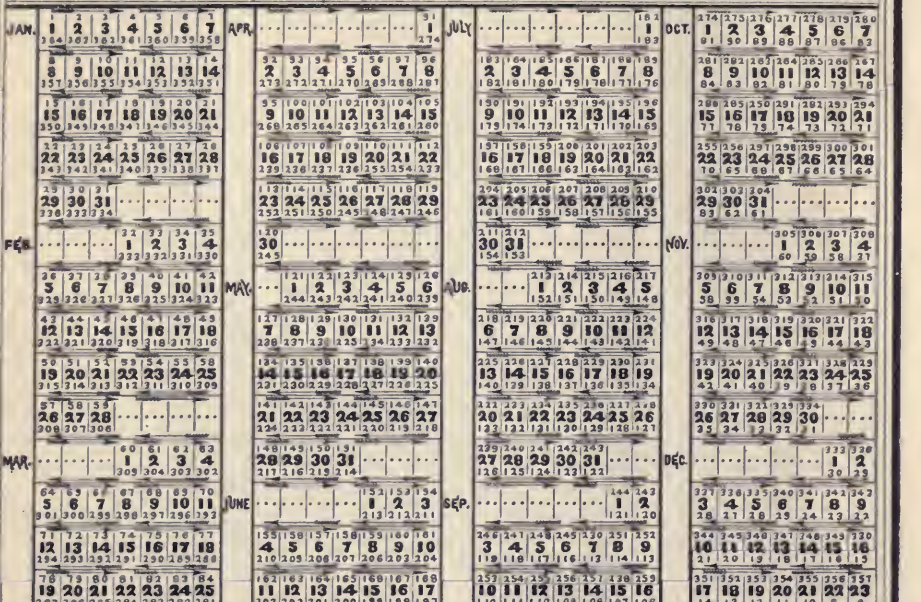
BUSINESS TIME TABLES.

I—TIME TABLE NUMBER—1.

Showing the Number of Days from the Beginning and to the End of the Year.



OBSERVATIONS AND EXAMPLES.

TIME TABLE NUMBER 1.

The table applies to common years only. For leap years, one day must be added after passing February 28. The bold-faced type represent the days of the month, and the small type above and below the bold-faced type represent the days from the beginning and to the end of the year, as shown by the direction of the arrows.

Examples.

1.—To find the difference between two dates within the year, take the difference between the days from the beginning and the days to the end of the year: thus, from March 5 to Oct. 27 is (300−64) 236 days.

2.—If one date fall within the year following the current year, add the number of days to the end of the year to the number from the beginning: thus, from June 3rd to February 16 in the following year is (211+47) 258 days.

3.—If one date fall within the year preceding the current year, add the number of days from the beginning of the year to the number to the end of the year: thus, from May 4 to Sept. 18, of the preceding year (reckoning backward) is (124+104) 228 days.

TIME TABLE NUMBER 2.

There being a table for each the common and the leap years, select the table to suit the year. Select the month from which the date is reckoned, at the top of the table, then descend the column to the month to which the date is reckoned, where will be found the exact number of days. The small figures, from 1 to 12, show the number of months.

Examples.

1.—What is the number of days from July 4 to March 4 (common year)?—From July at the top of the table, descend the column to March, where is found 243, the exact number of days.

2.—Find the number of days from Feb. 14 to Sept. 21 (Leap year).—From Feb. at the top descend to Sept., where is found 213, which is the number of days to the 14th of Sept.; then to the 21st is 7 days more, making 220 days.

3.—Required, the number of days from June 1, to Oct. 1 of the following year.—From June at the top descend to June, where is found 365; thence descend to Oct., where is found 122, which added to 365, equals 487.

4.—A note maturing Sept. 13, is discounted June 24 previous; what is the time to run?—From June 24 to Sept. 24, by the table, is 92 days; the 13th being 11 days before, gives (92−11) 81 days.

TIME TABLE NUMBER 3.

The table applies to common years only. For leap years, add one day after passing Feb. 28.

Example.

Find the number of days between March 17 and Feb. 4 in the following year.—The figures opposite the 17th day in the first March column are 76; opposite the 4th day of second Feb. col. are 400; dif.=324.

2-TIME TABLE NUMBER-2.

Showing the Number of Days from any Day of any one Month to the same Day of any other Month.

FOR COMMON YEARS.

FROM \ TO	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY.	AUG.	SEP.	OCT.	NOV.	DEC.
JAN.	Jan. 365 12	Jan. 334 11	Jan. 306 10	Jan. 275 9	Jan. 245 8	Jan. 214 7	Jan. 184 6	Jan. 153 5	Jan. 122 4	Jan. 92 3	Jan. 61 2	Jan. 31 1
FEB.	Feb. 31 1	Feb. 365 12	Feb. 337 11	Feb. 306 10	Feb. 276 9	Feb. 245 8	Feb. 215 7	Feb. 184 6	Feb. 153 5	Feb. 123 4	Feb. 92 3	Feb. 62 2
MAR.	Mar. 59 2	Mar. 28 1	Mar. 365 12	Mar. 334 11	Mar. 304 10	Mar. 273 9	Mar. 243 8	Mar. 212 7	Mar. 181 6	Mar. 151 5	Mar. 120 4	Mar. 90 3
APR.	Apr. 90 3	Apr. 59 2	Apr. 31 1	Apr. 365 12	Apr. 334 11	Apr. 304 10	Apr. 274 9	Apr. 243 8	Apr. 212 7	Apr. 182 6	Apr. 151 5	Apr. 121 4
MAY	May 120 4	May 89 3	May 61 2	May 30 1	May 365 12	May 334 11	May 304 10	May 273 9	May 242 8	May 212 7	May 181 6	May 151 5
JUNE	June 151 5	June 120 4	June 92 3	June 61 2	June 31 1	June 365 12	June 335 11	June 304 10	June 273 9	June 243 8	June 212 7	June 182 6
JULY	July 181 6	July 150 5	July 122 4	July 91 3	July 61 2	July 30 1	July 365 12	July 334 11	July 303 10	July 273 9	July 242 8	July 212 7
AUG.	Aug. 212 7	Aug. 181 6	Aug. 153 5	Aug. 122 4	Aug. 92 3	Aug. 61 2	Aug. 31 1	Aug. 365 12	Aug. 334 11	Aug. 304 10	Aug. 273 9	Aug. 243 8
SEP.	Sept. 243 8	Sept. 212 7	Sept. 184 6	Sept. 153 5	Sept. 123 4	Sept. 92 3	Sept. 62 2	Sept. 31 1	Sept. 365 12	Sept. 335 11	Sept. 304 10	Sept. 274 9
OCT.	Oct. 273 9	Oct. 242 8	Oct. 214 7	Oct. 183 6	Oct. 153 5	Oct. 122 4	Oct. 92 3	Oct. 61 2	Oct. 30 1	Oct. 365 12	Oct. 334 11	Oct. 304 10
NOV.	Nov. 304 10	Nov. 273 9	Nov. 245 8	Nov. 214 7	Nov. 184 6	Nov. 153 5	Nov. 123 4	Nov. 92 3	Nov. 61 2	Nov. 31 1	Nov. 365 12	Nov. 335 11
DEC.	Dec. 334 11	Dec. 303 10	Dec. 275 9	Dec. 244 8	Dec. 214 7	Dec. 183 6	Dec. 153 5	Dec. 122 4	Dec. 91 3	Dec. 61 2	Dec. 30 1	Dec. 365 12

FOR LEAP YEARS.

FROM \ TO	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY.	AUG.	SEP.	OCT.	NOV.	DEC.
JAN.	Jan. 366 12	Jan. 335 11	Jan. 306 10	Jan. 275 9	Jan. 245 8	Jan. 214 7	Jan. 184 6	Jan. 153 5	Jan. 122 4	Jan. 92 3	Jan. 61 2	Jan. 31 1
FEB.	Feb. 31 1	Feb. 366 12	Feb. 337 11	Feb. 306 10	Feb. 276 9	Feb. 245 8	Feb. 215 7	Feb. 184 6	Feb. 153 5	Feb. 123 4	Feb. 92 3	Feb. 62 2
MAR.	Mar. 60 2	Mar. 29 1	Mar. 366 12	Mar. 335 11	Mar. 305 10	Mar. 274 9	Mar. 244 8	Mar. 213 7	Mar. 182 6	Mar. 152 5	Mar. 121 4	Mar. 91 3
APR.	Apr. 91 3	Apr. 60 2	Apr. 31 1	Apr. 366 12	Apr. 336 11	Apr. 305 10	Apr. 275 9	Apr. 244 8	Apr. 213 7	Apr. 183 6	Apr. 152 5	Apr. 122 4
MAY	May 121 4	May 90 3	May 61 2	May 30 1	May 366 12	May 335 11	May 305 10	May 274 9	May 243 8	May 213 7	May 182 6	May 152 5
JUNE	June 152 5	June 121 4	June 92 3	June 61 2	June 31 1	June 366 12	June 336 11	June 305 10	June 274 9	June 244 8	June 213 7	June 183 6
JULY	July 182 6	July 151 5	July 122 4	July 91 3	July 61 2	July 30 1	July 366 12	July 335 11	July 304 10	July 274 9	July 243 8	July 213 7
AUG.	Aug. 213 7	Aug. 182 6	Aug. 153 5	Aug. 122 4	Aug. 92 3	Aug. 61 2	Aug. 31 1	Aug. 366 12	Aug. 335 11	Aug. 305 10	Aug. 274 9	Aug. 244 8
SEP.	Sept. 244 8	Sept. 213 7	Sept. 184 6	Sept. 153 5	Sept. 123 4	Sept. 92 3	Sept. 62 2	Sept. 31 1	Sept. 366 12	Sept. 336 11	Sept. 305 10	Sept. 275 9
OCT.	Oct. 274 9	Oct. 243 8	Oct. 214 7	Oct. 183 6	Oct. 153 5	Oct. 122 4	Oct. 92 3	Oct. 61 2	Oct. 30 1	Oct. 366 12	Oct. 335 11	Oct. 305 10
NOV.	Nov. 305 10	Nov. 274 9	Nov. 245 8	Nov. 214 7	Nov. 184 6	Nov. 153 5	Nov. 123 4	Nov. 92 3	Nov. 61 2	Nov. 31 1	Nov. 366 12	Nov. 336 11
DEC.	Dec. 335 11	Dec. 304 10	Dec. 275 9	Dec. 244 8	Dec. 214 7	Dec. 183 6	Dec. 153 5	Dec. 122 4	Dec. 91 3	Dec. 61 2	Dec. 30 1	Dec. 366 12

3-TIME TABLE NUMBER-3.

Showing the Number of Days between any two Days within three Years.

DA. MO.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29	..	88	119	149	180	210	241	272	302	333	363
30	30	..	89	120	150	181	211	242	273	303	334	364
31	31	..	90	..	151	..	212	243	..	304	..	365

DA. MO.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1	366	397	425	456	488	517	547	578	609	639	670	700
2	367	398	426	457	489	518	548	579	610	640	671	701
3	368	399	427	458	490	519	549	580	611	641	672	702
4	369	400	428	459	491	520	550	581	612	642	673	703
5	370	401	429	460	492	521	551	582	613	643	674	704
6	371	402	430	461	493	522	552	583	614	644	675	705
7	372	403	431	462	494	523	553	584	615	645	676	706
8	373	404	432	463	495	524	554	585	616	646	677	707
9	374	405	433	464	496	525	555	586	617	647	678	708
10	375	406	434	465	497	526	556	587	618	648	679	709
11	376	407	435	466	498	527	557	588	619	649	680	710
12	377	408	436	467	499	528	558	589	620	650	681	711
13	378	409	437	468	498	529	559	590	621	651	682	712
14	379	410	438	469	499	530	560	591	622	652	683	713
15	380	411	439	470	500	531	561	592	623	653	684	714
16	381	412	440	471	501	532	562	593	624	654	685	715
17	382	413	441	472	502	533	563	594	625	655	686	716
18	383	414	442	473	503	534	564	595	626	656	687	717
19	384	415	443	474	504	535	565	596	627	657	688	718
20	385	416	444	475	505	536	566	597	628	658	689	719
21	386	417	445	476	506	537	567	598	629	659	690	720
22	387	418	446	477	507	538	568	599	630	660	691	721
23	388	419	447	478	508	539	569	600	631	661	692	722
24	389	420	448	479	509	540	570	601	632	662	693	723
25	390	421	449	480	510	541	571	602	633	663	694	724
26	391	422	450	481	511	542	572	603	634	664	695	725
27	392	423	451	482	512	543	573	604	635	665	696	726
28	393	424	452	483	513	544	574	605	636	666	697	727
29	394	..	453	484	514	545	575	606	637	667	698	728
30	395	..	454	485	515	546	576	607	638	668	699	729
31	396	..	455	..	516	..	577	608	..	669	..	730

DA. MO.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1	731	762	790	821	851	882	912	943	974	1004	1035	1065
2	732	763	791	822	852	883	913	944	975	1005	1036	1066
3	733	764	792	823	853	884	914	945	976	1006	1037	1067
4	734	765	793	824	854	885	915	946	977	1007	1038	1068
5	735	766	794	825	855	886	916	947	978	1008	1039	1069
6	736	767	795	826	856	887	917	948	979	1009	1040	1070
7	737	768	796	827	857	888	918	949	980	1010	1041	1071
8	738	769	797	828	858	889	919	950	981	1011	1042	1072
9	739	770	798	829	859	890	920	951	982	1012	1043	1073
10	740	771	799	830	860	891	921	952	983	1013	1044	1074
11	741	772	800	831	861	892	922	953	984	1014	1045	1075
12	742	773	801	832	862	893	923	954	985	1015	1046	1076
13	743	774	802	833	863	894	924	955	986	1016	1047	1077
14	744	775	803	834	864	895	925	956	987	1017	1048	1078
15	745	776	804	835	865	896	926	957	988	1018	1049	1079
16	746	777	805	836	866	897	927	958	989	1019	1050	1080
17	747	778	806	837	867	898	928	959	990	1020	1051	1081
18	748	779	807	838	868	899	929	960	991	1021	1052	1082
19	749	780	808	839	869	900	930	961	992	1022	1053	1083
20	750	781	809	840	870	901	931	962	993	1023	1054	1084
21	751	782	810	841	871	902	932	963	994	1024	1055	1085
22	752	783	811	842	872	903	933	964	995	1025	1056	1086
23	753	784	812	843	873	904	934	965	996	1026	1057	1087
24	754	785	813	844	874	905	935	966	997	1027	1058	1088
25	755	786	814	845	875	906	936	967	998	1028	1059	1089
26	756	787	815	846	876	907	937	968	999	1029	1060	1090
27	757	788	816	847	877	908	938	969	1000	1030	1061	1091
28	758	789	817	848	878	909	939	970	1001	1031	1062	1092
29	759	..	818	849	879	910	940	971	1002	1032	1063	1093
30	760	..	819	850	880	911	941	972	1003	1033	1064	1094
31	761	..	820	..	881	..	942	973	..	1034	..	1095

JEWISH CALENDAR

The Jewish year is luni-solar, and is ordinary or embolismic, consisting of twelve or thirteen lunar months, each of which has 29 or 30 days. The length of the ordinary year is 354 days, and of the embolismic, 384 days; in either case, it is sometimes made a day more or a day less, in order that certain festivals may fall on proper days of the week.

The distribution of the embolismic years in each cycle of 19 years, is determined according to the following rules: The number of a Jewish year having its commencement in a Gregorian year is obtained by adding 3761; divide the Jewish year by 19; then the quotient is the number of the completed cycle, and the remainder is the year of the current cycle; if the remainder be 3, 6, 8, 11, 14, 17, or 19 the year is embolismic; if any other, the year is ordinary.

The calendar is constructed on the assumption that the mean lunation is 29 days 12 hours 44 minutes 3⅓ seconds, and that the year commences on, or immediately after, the new moon following the autumnal equinox. The mean solar year is also assumed to be 365 days 5 hours 55 minutes 25⅔ seconds, so that a cycle of nineteen such years, is the exact measure of 235 of the assumed lunations.

After the dates of the commencement of the successive years are adjusted, an estimation of the consecutive intervals, by taking the difference, will show the duration and character of the years that respectively intervene. According to the number of days thus found to be contained in the different years, the days of the several months are distributed as in the table of months. The signs + and – are respectively annexed to Heshvan and Kislev to indicate that the former of these months may sometimes require to have one day more, and the latter, one day less, than the number of days shown in the table,—the result, in every case, being at once determined by the total number of days that the year may happen to contain.

JEWISH MONTHS.

HEBREW MONTHS	ORDINARY YEAR	EMBOLISMIC YEAR
TISRI	30	30
HESVAN	29+	29+
KISLEV	30-	30-
TEBAT	29	29
SEBAT	30	30
ADAR	29	30
(VEADAR)	(--)	(29)
NISAN	30	30
YIAR	29	29
SIVAN	30	30
TAMUZ	29	29
AB	30	30
ELUL	29	29

PRINCIPAL DAYS OF THE HEBREW CALENDAR.

TISRI 1, New Year, Feast of Trumpets
" 3, Fast of Gedaliah.
" 10, Fast of Expiation.
" 15, Feast of Tabernacles.
" 21, Last Day of the Festivals.
" 22, Feast of the 8th Day.
" 23, Rejoicing of the Law.
KISLEV 25, Dedication of Temple.
TEBET 10, Fast, Siege of Jerusalem
ADAR 13, Fast of Esther.
" 14, Purim.
NISAN 15, Passover.
SIVAN 6, Pentecost.
TAMUZ 17, Fast, Taking of Jerusalem.
AB Destruction of Temple.

TABLE OF HEBREW YEARS. (FROM WOOLHOUSE'S WEIGHTS, MEASURES, ETC.)

JEWISH YEAR	NUMBER OF DAYS	COMMENCEMENT (1ST OF TISRI).	JEWISH YEAR	NUMBER OF DAYS	COMMENCEMENT (1ST OF TISRI).	JEWISH YEAR	NUMBER OF DAYS.	COMMENCEMENT (1ST OF TISRI)	JEWISH YEAR	NUMBER OF DAYS.	COMMENCEMENT (1ST OF TISRI).
5606	354	THUR. 2 OCT. 1845	5663	355	THUR. 2 OCT. 1902	5720	355	SAT. 3 OCT. 1959	5777	353	MON. 3 OCT. 2016
07	355	MON. 21 SEPT. 1846	64	354	TUES. 22 SEPT. 1903	21	354	THUR. 22 SEPT. 1960	78	354	THUR. 21 SEPT. 2017
08	383	SAT. 11 SEPT. 1847	65	385	SAT. 10 SEPT. 1904	22	383	MON. 11 SEPT. 1961	79	385	MON. 10 SEPT. 2018
09	354	THUR. 28 SEPT. 1848	66	355	SAT. 30 SEPT. 1905	23	355	SAT. 29 SEPT. 1962	80	355	MON. 30 SEPT. 2019
10	355	MON. 17 SEPT. 1849	67	354	THUR. 20 SEPT. 1906	24	354	THUR. 19 SEPT. 1963	81	353	SAT. 19 SEPT. 2020
11	385	SAT. 7 SEPT. 1850	68	383	MON. 9 SEPT. 1907	25	385	MON. 7 SEPT. 1964	82	384	TUES. 7 SEPT. 2021
12	353	SAT. 27 SEPT. 1851	69	355	SAT. 28 SEPT. 1908	26	353	MON. 27 SEPT. 1965	83	355	MON. 26 SEPT. 2022
13	384	TUES. 14 SEPT. 1852	70	383	THUR. 16 SEPT. 1909	27	385	THUR. 15 SEPT. 1966	84	383	SAT. 16 SEPT. 2023
14	355	MON. 3 OCT. 1853	71	354	TUES. 4 OCT. 1910	28	354	THUR. 5 OCT. 1967	85	355	THUR. 3 OCT. 2024
15	355	SAT. 23 SEPT. 1854	72	355	SAT. 23 SEPT. 1911	29	355	MON. 23 SEPT. 1968	86	354	TUES. 23 SEPT. 2025
16	383	THUR. 13 SEPT. 1855	73	385	THUR. 12 SEPT. 1912	30	383	SAT. 13 SEPT. 1969	87	385	SAT. 12 SEPT. 2026
17	354	TUES. 30 SEPT. 1856	74	354	THUR. 2 OCT. 1913	31	354	THUR. 1 OCT. 1970	88	355	SAT. 2 OCT. 2027
18	353	SAT. 19 SEPT. 1857	75	353	MON. 21 SEPT. 1914	32	355	MON. 20 SEPT. 1971	89	354	THUR. 21 SEPT. 2028
19	385	THUR. 9 SEPT. 1858	76	385	THUR. 9 SEPT. 1915	33	383	SAT. 9 SEPT. 1972	90	383	MON. 10 SEPT. 2029
20	354	THUR. 29 SEPT. 1859	77	354	THUR. 28 SEPT. 1916	34	355	THUR. 27 SEPT. 1973	91	355	SAT. 28 SEPT. 2030
21	353	MON. 17 SEPT. 1860	78	355	MON. 17 SEPT. 1917	35	354	TUES. 17 SEPT. 1974	92	354	THUR. 18 SEPT. 2031
22	385	THUR. 5 SEPT. 1861	79	383	SAT. 7 SEPT. 1918	36	385	SAT. 6 SEPT. 1975	93	383	MON. 6 SEPT. 2032
23	354	THUR. 25 SEPT. 1862	80	354	THUR. 25 SEPT. 1919	37	353	SAT. 25 SEPT. 1976	94	355	SAT. 24 SEPT. 2033
24	383	MON. 14 SEPT. 1863	81	385	MON. 13 SEPT. 1920	38	384	TUES. 13 SEPT. 1977	95	385	THUR. 14 SEPT. 2034
5625	355	SAT. 1 OCT. 1864	5682	355	MON. 3 OCT. 1921	5739	355	MON. 2 OCT. 1978	5796	354	THUR. 4 OCT. 2035
26	354	THUR. 21 SEPT. 1865	83	353	SAT. 23 SEPT. 1922	40	355	SAT. 22 SEPT. 1979	97	353	MON. 22 SEPT. 2036
27	385	MON. 10 SEPT. 1866	84	384	TUES. 11 SEPT. 1923	41	383	THUR. 11 SEPT. 1980	98	385	THUR. 10 SEPT. 2037
28	353	MON. 30 SEPT. 1867	85	355	MON. 29 SEPT. 1924	42	354	TUES. 29 SEPT. 1981	99	354	THUR. 30 SEPT. 2038
29	354	THUR. 17 SEPT. 1868	86	355	SAT. 19 SEPT. 1925	43	355	SAT. 18 SEPT. 1982	5800	355	MON. 19 SEPT. 2039
30	385	MON. 6 SEPT. 1869	87	383	THUR. 8 SEPT. 1926	44	385	THUR. 6 SEPT. 1983	01	383	SAT. 8 SEPT. 2040
31	355	MON. 26 SEPT. 1870	88	354	TUES. 27 SEPT. 1927	45	354	THUR. 27 SEPT. 1984	02	354	THUR. 28 SEPT. 2041
32	383	SAT. 16 SEPT. 1871	89	385	SAT. 15 SEPT. 1928	46	383	MON. 16 SEPT. 1985	03	385	MON. 15 SEPT. 2042
33	354	THUR. 3 OCT. 1872	90	353	SAT. 5 OCT. 1929	47	355	SAT. 4 OCT. 1986	04	353	SAT. 5 OCT. 2043
34	355	MON. 22 SEPT. 1873	91	354	TUES. 23 SEPT. 1930	48	354	THUR. 24 SEPT. 1987	05	354	THUR. 22 SEPT. 2044
35	383	SAT. 12 SEPT. 1874	92	385	SAT. 12 SEPT. 1931	49	383	MON. 12 SEPT. 1988	06	384	TUES. 12 SEPT. 2045
36	355	THUR. 30 SEPT. 1875	93	355	SAT. 1 OCT. 1932	50	355	SAT. 30 SEPT. 1989	07	355	MON. 1 OCT. 2046
37	354	TUES. 19 SEPT. 1876	94	354	THUR. 21 SEPT. 1933	51	354	THUR. 20 SEPT. 1990	08	353	SAT. 21 SEPT. 2047
38	385	SAT. 8 SEPT. 1877	95	383	MON. 10 SEPT. 1934	52	385	MON. 9 SEPT. 1991	09	384	TUES. 8 SEPT. 2048
39	355	SAT. 28 SEPT. 1878	96	355	SAT. 26 SEPT. 1935	53	355	MON. 28 SEPT. 1992	10	355	MON. 27 SEPT. 2049
40	354	THUR. 18 SEPT. 1879	97	354	THUR. 17 SEPT. 1936	54	355	THUR. 16 SEPT. 1993	11	355	SAT. 17 SEPT. 2050
41	383	MON. 6 SEPT. 1880	98	385	MON. 6 SEPT. 1937	55	384	TUES. 6 SEPT. 1994	12	383	THUR. 7 SEPT. 2051
42	355	SAT. 24 SEPT. 1881	99	353	MON. 26 SEPT. 1938	56	355	MON. 25 SEPT. 1995	13	354	TUES. 24 SEPT. 2052
43	384	THUR. 14 SEPT. 1882	5700	385	THUR. 14 SEPT. 1939	57	383	SAT. 14 SEPT. 1996	14	385	SAT. 13 SEPT. 2053
5644	354	TUES. 2 OCT. 1883	5701	354	THUR. 3 OCT. 1940	5758	354	THUR. 2 OCT. 1997	5815	355	SAT. 3 OCT. 2054
45	355	SAT. 20 SEPT. 1884	02	355	MON. 22 SEPT. 1941	59	355	MON. 21 SEPT. 1998	16	354	THUR. 23 SEPT. 2055
46	385	THUR. 10 SEPT. 1885	03	383	SAT. 12 SEPT. 1942	60	385	SAT. 11 SEPT. 1999	17	383	MON. 11 SEPT. 2056
47	354	THUR. 30 SEPT. 1886	04	354	THUR. 30 SEPT. 1943	61	353	SAT. 30 SEPT. 2000	18	355	SAT. 29 SEPT. 2057
48	353	MON. 19 SEPT. 1887	05	355	MON. 18 SEPT. 1944	62	354	TUES. 18 SEPT. 2001	19	354	THUR. 19 SEPT. 2058
49	385	THUR. 6 SEPT. 1888	06	383	SAT. 8 SEPT. 1945	63	385	SAT. 7 SEPT. 2002	20	383	MON. 8 SEPT. 2059
50	354	THUR. 26 SEPT. 1889	07	354	THUR. 26 SEPT. 1946	64	355	SAT. 27 SEPT. 2003	21	355	SAT. 25 SEPT. 2060
51	383	MON. 15 SEPT. 1890	08	385	MON. 15 SEPT. 1947	65	383	THUR. 16 SEPT. 2004	22	385	THUR. 15 SEPT. 2061
52	355	SAT. 3 OCT. 1891	09	355	MON. 4 OCT. 1948	66	354	TUES. 4 OCT. 2005	23	354	THUR. 5 OCT. 2062
53	354	THUR. 22 SEPT. 1892	10	353	SAT. 24 SEPT. 1949	67	355	SAT. 23 SEPT. 2006	24	353	MON. 24 SEPT. 2063
54	385	MON. 11 SEPT. 1893	11	384	TUES. 12 SEPT. 1950	68	383	THUR. 13 SEPT. 2007	25	385	THUR. 11 SEPT. 2064
55	353	MON. 1 OCT. 1894	12	355	MON. 1 OCT. 1951	69	354	TUES. 30 SEPT. 2008	26	354	THUR. 1 OCT. 2065
56	355	THUR. 19 SEPT. 1895	13	355	SAT. 20 SEPT. 1952	70	355	SAT. 19 SEPT. 2009	27	355	MON. 20 SEPT. 2066
57	384	TUES. 8 SEPT. 1896	14	383	THUR. 10 SEPT. 1953	71	385	THUR. 9 SEPT. 2010	28	383	SAT. 10 SEPT. 2067
58	355	MON. 27 SEPT. 1897	15	354	TUES. 28 SEPT. 1954	72	354	THUR. 29 SEPT. 2011	29	354	THUR. 27 SEPT. 2068
59	353	SAT. 17 SEPT. 1898	16	355	SAT. 17 SEPT. 1955	73	353	MON. 17 SEPT. 2012	30	355	MON. 16 SEPT. 2069
60	384	TUES. 5 SEPT. 1899	17	385	THUR. 6 SEPT. 1956	74	385	THUR. 5 SEPT. 2013	31	383	SAT. 6 SEPT. 2070
61	355	MON. 24 SEPT. 1900	18	354	THUR. 26 SEPT. 1957	75	354	THUR. 25 SEPT. 2014	32	355	THUR. 24 SEPT. 2070
62	383	SAT. 14 SEPT. 1901	19	383	MON. 15 SEPT. 1958	76	385	MON. 14 SEPT. 2015	33	384	TUES. 13 SEPT. 2071

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MOHAMMEDAN CALENDAR

The Mohammedan era, or era of the Hegira, is dated from the flight of Mohammed from Mecca to Medina, which was in the night of Thursday the 15th of July 622 A.D., and it commenced on the day following.

The years of the Hegira are purely lunar, and always consist of a period of twelve lunar months, commencing with the approximate new moon, without any intercalation to keep them to the same season with respect to the sun, so that they retrograde through all the seasons in about 32½ years. They are also partitioned into cycles of 30 years, 19 of which are common years of 354 days each, and the other 11 are intercalary years having an additional day appended to the last month.

The mean length of the year is 354 days, 8 hours, and 48 minutes, and that of the month is 29 days, 12 hours, and 44 minutes, which differs from the mean astronomical lunar month by only 2.8 seconds, so that the error amounts to only a day in about 2400 years.

To find if a year is intercalary or common, divide it by 30; the quotient will be the number of completed cycles, and the remainder will be the year of the current cycle; if this last be one of the numbers 2, 5, 7, 10, 13, 16, 18, 21, 24, 26, 29, the year is intercalary and consists of 355 days; if it be any other number, the year is common.

The intercalary years of each cycle in the table of years is distinguished by an asterisk.

The table of years given below shows the dates of the commencement of Mahommedan years from 1845 up to 2047, or from the 43rd to the 49th cycle inclusive, which form the whole of the seventh period of seven cycles. Throughout the next period of seven cycles, and all other like periods, the days of the week will occur in exactly the same order.

PRINCIPLES OF THE MOHAMMEDAN RELIGION.

The religion founded by Mohammed, is, according to him, the only orthodox creed existing from the beginning of the world, and preached by all the prophets ever since Adam. It is also called Islam.

The fundamental principles of the religion are contained in the two articles of belief: "There is no God but God; and Mohammed is God's Apostle." The Mohammedan doctrine of God's being and attributes coincide with the Christian, so far as relates to him as the Creator of heaven and earth who rules and preserves all things, and who is without beginning, omnipotent, omniscient, omnipresent, and full of mercy.

MOHAMMEDAN MONTHS.

Muharram	30	Shaaban	29
Saphar	29	Ramadan	30
Rabia I.	30	Shawall	29
Rabia II.	29	Dulkaada	30
Jomada I.	30	Dulheggia	29
Jomada II.	29	,, and in intercalary years	30
Rajab	30		

PRINCIPAL DAYS OF THE MOHAMMEDAN CALENDAR.

Muharram	1,	New Year.
,,	10,	Ashura.
Rabia I.	11,	Birth of Mohammed.
Jomada I.	20,	Taking of Constantinople.
Rajab	15,	Day of Victory.
,,	20,	Exaltation of Mohammed.
Shaaban	15,	Borak's Night.
Shawall	1, 2, 3,	Grand Bairam.
Dulheggia	1,	Kurban Bairam.

TABLE OF MOHAMMEDAN YEARS. (FROM WOOLHOUSE'S WEIGHTS, MEASURES, ETC.)

YEAR OF HEGIRA	COMMENCEMENT (1ST OF MUHARRAM).			YEAR OF HEGIRA	COMMENCEMENT (1ST OF MUHARRAM).			YEAR OF HEGIRA	COMMENCEMENT (1ST OF MUHARRAM).			YEAR OF HEGIRA	COMMENCEMENT (1ST OF MUHARRAM).		
43 CYCLE.				1301	FRID.	2 NOV.	1883	1344*	WED.	22 JULY	1925	1384	WED.	13 MAY	1964
1261	FRID.	10 JAN.	1845	1302	TUES.	21 OCT.	1884	1345	MON.	12 JULY	1926	1385*	SUN.	2 MAY	1965
1262*	TUES.	30 DEC.	1845	1303*	SAT.	10 OCT.	1885	1346*	FRID.	1 JULY	1927	1386	FRID.	22 APRIL	1966
1263	SUN.	20 DEC.	1846	1304	THUR.	30 SEPT.	1886	1347	WED.	20 JUNE	1928	1387*	TUES.	11 APRIL	1967
1264	THUR.	9 DEC.	1847	1305	MON.	19 SEPT.	1887	1348	SUN.	9 JUNE	1929	1388	SUN.	31 MAR.	1968
1265*	MON.	27 NOV.	1848	1306*	FRID.	7 SEPT.	1888	1349*	THUR.	29 MAY	1930	1389	THUR.	20 MAR.	1969
1266	SAT.	17 NOV.	1849	1307	WED.	28 AUG.	1889	1350	TUES.	19 MAY	1931	1390*	MON.	9 MAR.	1970
1267*	WED.	6 NOV.	1850	1308*	SUN.	17 AUG.	1890					1391	SAT.	27 FEB.	1971
1268	MON.	27 OCT.	1851	1309	FRID.	7 AUG.	1891	**46 CYCLE.**				1392	WED.	16 FEB.	1972
1269	FRID.	15 OCT.	1852	1310	TUES.	26 JULY	1892					1393*	SUN.	4 FEB.	1973
1270*	TUES.	4 OCT.	1853	1311*	SAT.	15 JULY	1893	1351	SAT.	7 MAY	1932	1394	FRID.	25 JAN.	1974
1271	SUN.	24 SEPT.	1854	1312	THUR.	5 JULY	1894	1352*	WED.	26 APRIL	1933	1395	TUES.	14 JAN.	1975
1272	THUR.	13 SEPT.	1855	1313	MON.	24 JUNE	1895	1353	MON.	16 APRIL	1934	1396*	SAT.	3 JAN.	1976
1273*	MON.	1 SEPT.	1856	1314*	FRID.	12 JUNE	1896	1354	FRID.	5 APRIL	1935	1397	THUR.	23 DEC.	1976
1274	SAT.	22 AUG.	1857	1315	WED.	2 JUNE	1897	1355*	TUES.	24 MAR.	1936	1398*	MON.	12 DEC.	1977
1275	WED.	11 AUG.	1858	1316*	SUN.	22 MAY	1898	1356	SUN.	14 MAR.	1937	1399	SAT.	2 DEC.	1978
1276*	SUN.	31 JULY	1859	1317	FRID.	12 MAY	1899	1357*	THUR.	3 MAR.	1938	1400	WED.	21 NOV.	1979
1277	FRID.	20 JULY	1860	1318	TUES.	1 MAY	1900	1358	TUES.	21 FEB.	1939	1401*	SUN.	9 NOV.	1980
1278*	TUES.	9 JULY	1861	1319	SAT.	20 APRIL	1901	1359	SAT.	10 FEB.	1940	1402	FRID.	30 OCT.	1981
1279	SUN.	29 JUNE	1862	1320	THUR.	10 APRIL	1902	1360*	WED.	29 JAN.	1941	1403	TUES.	19 OCT.	1982
1280	THUR.	18 JUNE	1863					1361	MON.	19 JAN.	1942	1404*	SAT.	8 OCT.	1983
1281*	MON.	6 JUNE	1864	**45 CYCLE.**				1362	FRID.	8 JAN.	1943	1405	THUR.	27 SEPT.	1984
1282	SAT.	27 MAY	1865					1363*	TUES.	28 DEC.	1943	1406*	MON.	16 SEPT.	1985
1283	WED.	16 MAY	1866	1321	MON.	30 MARCH	1903	1364	SUN.	17 DEC.	1944	1407	SAT.	6 SEPT.	1986
1284*	SUN.	5 MAY	1867	1322*	FRID.	18 MARCH	1904	1365	THUR.	6 DEC.	1945	1408	WED.	26 AUG.	1987
1285	FRID.	24 APRIL	1868	1323	WED.	8 MARCH	1905	1366*	MON.	25 NOV.	1946	1409*	SUN.	14 AUG.	1988
1286*	TUES.	13 APRIL	1869	1324	SUN.	25 FEB.	1906	1367	SAT.	15 NOV.	1947	1410	FRID.	4 AUG.	1989
1287	SUN.	3 APRIL	1870	1325*	THUR.	14 FEB.	1907	1368*	WED.	3 NOV.	1948				
1288	THUR.	23 MARCH	1871	1326	TUES.	4 FEB.	1908	1369	MON.	24 OCT.	1949	**48 CYCLE.**			
1289*	MON.	11 MARCH	1872	1327*	SAT.	23 JAN.	1909	1370	FRID.	13 OCT.	1950				
1290	SAT.	1 MARCH	1873	1328	THUR.	13 JAN.	1910	1371*	TUES.	2 OCT.	1951	1411	TUES.	24 JULY	1990
				1329	MON.	2 JAN.	1911	1372	SUN.	21 SEPT.	1952	1412*	SAT.	13 JULY	1991
44 CYCLE.				1330*	FRID.	22 DEC.	1911	1373	THUR.	10 SEPT.	1953	1413	THUR.	2 JULY	1992
				1331	WED.	11 DEC.	1912	1374*	MON.	30 AUG.	1954	1414	MON.	21 JUNE	1993
				1332	SUN.	30 NOV.	1913	1375	SAT.	20 AUG.	1955	1415*	FRID.	10 JUNE	1994
				1333*	THUR.	19 NOV.	1914	1376*	WED.	8 AUG.	1956	1416	WED.	31 MAY	1995
1291	WED.	18 FEB.	1874	1334	TUES.	9 NOV.	1915	1377	MON.	29 JULY	1957	1417*	SUN.	19 MAY	1996
1292*	SUN.	7 FEB.	1875	1335	SAT.	28 OCT.	1916	1378	FRID.	18 JULY	1958	1418	FRID.	9 MAY	1997
1293	FRID.	28 JAN.	1876	1336*	WED.	17 OCT.	1917	1379*	TUES.	7 JULY	1959	1419	TUES.	28 APRIL	1998
1294	TUES.	16 JAN.	1877	1337	MON.	7 OCT.	1918	1380	SUN.	26 JUNE	1960	1420*	SAT.	17 APRIL	1999
1295*	SAT.	5 JAN.	1878	1338*	FRID.	26 SEPT.	1919					1421	THUR.	6 APRIL	2000
1296	THUR.	26 DEC.	1878	1339	WED.	15 SEPT.	1920	**47 CYCLE.**				1422	MON.	26 MAR.	2001
1297*	MON.	15 DEC.	1879	1340	SUN.	4 SEPT.	1921					1423*	FRID.	15 MAR.	2002
1298	SAT.	4 DEC.	1880	1341*	THUR.	24 AUG.	1922	1381	THUR.	13 JUNE	1961	1424	WED.	5 MAR.	2003
1299	WED.	23 NOV.	1881	1342	TUES.	14 AUG.	1923	1382*	MON.	4 JUNE	1962	1425	SUN.	22 FEB.	2004
1300	SUN.	12 NOV.	1882	1343	SAT.	4 AUG.	1924	1383	SAT.	25 MAY	1963	1426*	THUR.	10 FEB.	2005

YEAR OF HEGIRA	COMMENCEMENT (1ST OF MUHARRAM).		
1427	TUES.	31 JAN.	2006
1428*	SAT.	20 JAN.	2007
1429	THUR.	10 JAN.	2008
1430	MON.	29 DEC.	2008
1431*	FRID.	18 DEC.	2009
1432	WED.	8 DEC.	2010
1433	SUN.	27 NOV.	2011
1434*	THUR.	15 NOV.	2012
1435	TUES.	5 NOV.	2013
1436*	SAT.	25 OCT.	2014
1437	THUR.	15 OCT.	2015
1438	MON.	3 OCT.	2016
1439*	FRID.	22 SEPT.	2017
1440	WED.	12 SEPT.	2018
49 CYCLE			
1441	SUN.	1 SEPT.	2019
1442*	THUR.	20 AUG.	2020
1443	TUES.	10 AUG.	2021
1444	SAT.	30 JULY	2022
1445*	WED.	19 JULY	2023
1446	MON.	8 JULY	2024
1447*	FRID.	27 JUNE	2025
1448	WED.	17 JUNE	2026
1449	SUN.	6 JUNE	2027
1450*	THUR.	25 MAY	2028
1451	TUES.	15 MAY	2029
1452	SAT.	4 MAY	2030
1453*	WED.	23 APRIL	2031
1454	MON.	12 APRIL	2032
1455	FRID.	1 APRIL	2033
1456*	TUES.	21 MAR.	2034
1457	SUN.	11 MAR.	2035
1458*	THUR.	28 FEB.	2036
1459	TUES.	17 FEB.	2037
1460	SAT.	6 FEB.	2038
1461	WED.	26 JAN.	2039
1462	MON.	16 JAN.	2040
1463	FRID.	4 JAN.	2041
1464*	TUES.	24 DEC.	2041
1465	SUN.	14 DEC.	2042
1466*	THUR.	3 DEC.	2043
1467	TUES.	22 NOV.	2044
1468	SAT.	11 NOV.	2045
1469*	WED.	31 OCT.	2046
1470	MON.	21 OCT.	2047

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ANNIVERSARY CALENDAR.

OBSERVATION.

The following Landmarks of the World's History, while not the most important in every case, call to memory those events that have made civilization what it is and ever has been.

OBSERVATION.

As it is interesting to know upon what day of the week the event occurred, the week day is given in each case. Previous to 1752 dates are reckoned from Old Style.

JANUARY.

1–Union Flag first unfurled by Washington at Cambridge, 1776, Monday.
2–Accession of William I. King of Prussia, 1861, Wednesday.
3–Martin Luther excommunicated by the Pope, 1521, Thursday.
4–Triple Alliance between France, England and Holland, 1717, Friday.
5–Rhode Island colonized by Roger Williams, 1636, Tuesday.
6–British Government offers to treat for peace, 1814, Thursday.
7–British orders in Council issued, prohibiting coast trade, 1807, Wednesday.
8–Battle of New Orleans–British defeated by Jackson, 1815, Sunday.
9–Astor Library in New York City opened, 1854, Monday.
10–Penny Postage in Great Britain came into operation, 1840, Friday.
11–Bill to abolish slavery in the U.S. submitted to the Senate, 1864, Wednesday.
12–Birth of John Hancock, Revolutionary Patriot, 1737, Wednesday.
13–Plymouth Charter granted to Plymouth Company, 1630, Wednesday.
14–Peace with Great Britain ratified by Congress, 1784, Wednesday.
15–Telephone invented by Prof. Graham Bell, 1878, Saturday.
16–Burial of Sir John Moore, English General, 1809, Monday.
17–Battle of the Cowpens, Morgan defeats Tarleton, 1781, Wednesday.
18–German Empire established, 1871, Wednesday.
19–Gold discovered in California at Sutter's Mill, 1848, Wednesday.
20–First English Parliament convened, 1265, Tuesday.
21–Louis XVI. of France beheaded–"Reign of Terror," 1793, Monday.
22–United Parliaments of England and Ireland first meet, 1801, Thursday.
23–Panama Canal, to join the two oceans, commenced, 1880, Friday.
24–Death of Henry W. Longfellow, American Poet, 1882, Tuesday.
25–Emancipation of Jews, Speech on Gentiles, 25 A.D., Saturday.
26–Expiration of the Alien and Sedition Laws, 1801, Monday.
27–Treaty of Ghent, closing War of 1812, ratified by England, 1815, Friday.
28–Accession of Edward VI. to the Throne of England, 1547, Friday.
29–Uniform Rule of Naturalization adopted by Congress, 1795, Sunday.
30–Execution of Charles I. of England–Commonwealth begins, 1649, Tuesday.
31–Launching of the huge ship "Great Eastern," 1858, Sunday.

FEBRUARY.

1–Amendment 13th, abolishing Slavery, passed by the House, 1865, Wednesday.
2–Treaty of Peace between United States and Mexico, 1847, Tuesday.
3–Independence of Oraaca proclaimed, 1930, Wednesday.
4–Peace Conference convened at Washington, 1861, Monday.
5–Sweden acknowledges Independence of United States, 1782, Wednesday.
6–James II. accedes to the Throne of England, 1685, Friday.
7–Pennsylvania Hospital (first in America) established, 1751, Thursday.
8–Southern Confederacy formed at Montgomery, Ala., 1861, Friday.
9–Roger Williams arrived at Boston from England, 1631, Wednesday.
10–Naval Battle–U.S. Sloop "Hornet" captures Brit. Brig "Resolute," 1813, Wednesday.
11–Circular Letter of Mass. against Taxation published, 1768, Thursday.
12–First Fugitive Slave Law passed by Congress, 1793, Tuesday.
13–William and Mary became King and Queen of England, 1689, Wednesday.
14–Captain Cook, English navigator, killed on Sandwich Isls., 1779, Sunday.
15–St. Louis, Mo., settled by the French, 1764, Wednesday.
16–Fort Donelson, Tenn., surrendered to Grant, 1862, Sunday.
17–Columbia, S.C., surrendered to Sherman, 1865, Friday.
18–Death of Martin Luther, Ger. religious reformer, 1546, Thursday.
19–Arrest of Aaron Burr, on charge of Treason, 1807, Thursday.
20–Several Brit. ships (Braddock's Defeat) arrived in Va., 1755, Thursday.
21–Death of John Quincy Adams, aged 81 years, 1848, Monday.
21–First Convention of the Republicans met at Pittsburg, 1856, Friday.
23–Abraham Lincoln secretly arrived at Washington, 1861, Saturday.
24–Arizona Territory formed by Act of Congress, 1863, Sunday.
25–United States Bank first chartered (capital $10,000,000), 1791, Friday.
26–Republic proclaimed in France, Napoleon President, 1848, Saturday.
27–Joint High Commission at Washington, an Alabama Claims, 1871, Monday.
28–Railway Slave National Fugitive created by Congress, 1871, Tuesday.
29–Deerfield, Mass., burned by French and Indians, 1704, Tuesday.

MARCH.

1–Bank of Pennsylvania chartered, first in the U.S., 1780, Wednesday.
2–Bureau of Education established at Washington, 1867, Saturday.
3–Missouri Compromise Bill passed by Congress, 1820, Friday.
4–British House of Commons resolves to end Amer. War, 1782, Monday.
5–Second affray in Boston–"Boston Massacre," 1770, Monday.
6–Dred Scott Decision by U.S. Supreme Court, 1857, Friday.
7–British Bible Society instituted, 1804, Wednesday.
8–Stamp Act, for Amer. Colonies, passed by Parliament, 1765, Friday.
9–Encounter between "Merrimac" and "Ironclad," 1862, Sunday.
10–The Livingstone Expedition sailed for Africa, 1858, Wednesday.
11–Death of Charles Sumner, eminent statesman, 1874, Wednesday.
12–Blizzard in New York City–blockade several days, 1888, Monday.
12–Czar Alexander II. of Russia assassinated, 1881, Sunday.
14–The Kingdom of Italy established, 1861, Thursday.
15–Battle of Guilford Court House–Cornwallis defeats Greene, 1781, Thursday.
15–West Point Military Academy founded by Congress, 1802, Tuesday.
18–The Stamp Act repealed by the British Parliament, 1766, Tuesday.
17–Boston evacuated by the British soldiery, 1776, Sunday.
19–First Eclipse of the Moon recorded, 721 B.C. (N.) Sunday.
20–La Salle shot by one of his men in Texas, 1687, Sunday.
21–Extradition Treaty with Sweden and Norway, 1860, Wednesday.
22–Act to prevent Slave Trade passed by Congress, 1794, Saturday.
23–War declared by Plymouth against the Indians, 1622, Sunday.
24–Spain acknowledges Independence of United States, 1783, Monday.
25–Abolition of Slave Trade in British Empire, 1807, Wednesday.
26–Providence, R.I., attacked by the Indians, 1676, Sunday.
27–Battle of Horse Shoe Bend, Ala., Jackson defeats Creeks, 1814, Sunday.
28–Vote of Censure passed by Senate against Pres't Jackson, 1834, Friday.
29–Surrender of Vera Cruz, Mexico, to General Scott, 1847, Monday.
30–Sicilian Vespers–12,000 Frenchmen–massacred, 1282, Monday.
31–Battle of Dinwiddie Court House–Sheridan defeats Lee, 1865, Friday.

APRIL.

1–Harvey, discoverer of Circulation of Blood, born, 1578, Tuesday.
2–U.S. Mint, the first, established at Philadelphia, 1792, Monday.
2–Richmond, Va., evacuated by the Confederates, 1865, Monday.
4–Death of the President, William H. Harrison, 1841, Sunday.
5–Yorktown, Va., besieged by General McClellan, 1862, Saturday.
6–Battle of Shiloh, Gen. Grant defeats Gen. Beauregard, 1862, Sunday.
7–Mississippi Territory formed by Act of Congress, 1798, Saturday.
8–Bill to abolish Slavery passed by the Senate, 1864, Friday.
9–Lee's Surrender to Grant at Appomattox Court House, 1865, Sunday.
10–U.S. Bank, re-chartered (capital $35,000,000), 1816, Wednesday.
11–Florida discovered by Ponce de Leon, 1512, Easter Sunday.
12–Scotland declared incorporated with England, 1654, Wednesday.
13–Edict of Nantes, tolerating Protestants, proclaimed, 1598, Thursday.
14–President Lincoln assassinated by John Wilkes Booth, 1865, Friday.
15–Patent Right Law first enacted by Congress, 1790, Thursday.
16–Slavery abolished in District of Columbia, 1862, Wednesday.
17–Columbus obtains sanction of Ferdinand and Isabella, 1492, Tuesday.
18–Corner Stone of St. Peter's at Rome laid, 1506, Tuesday.
19–Battle of Bunker Hill, Revolutionary War, 1775, Wednesday.
20–Expulsion of the "Rump" Parliament by Cromwell, 1653, Wednesday.
21–United States Mint established at Denver, Col., 1862, Monday.
22–Battle of Granicus, Alexander defeats Darius, 334 B.C., Thursday, N.S.
23–Death of William Shakspeare, Eng. Dramatic Poet, 1616, Tuesday.
24–Boston News Letter, first paper published in U.S., 1704, Monday.
25–New Orleans captured by Commodore Farragut, 1862, Friday.
26–Hostilities begin between United States and Mexico, 1846, Sunday.
27–Death of Ralph Waldo Emerson, American Poet, 1882, Thursday.
28–Charlotte Harbor, Fla., attacked by the Seminoles, 1836, Thursday.
29–Battle of Orleans, France, siege relieved by Joan of Arc, 1429, Friday.
30–Washington inaugurated first President of U.S., 1789, Thursday.

MAY.

1–First International Exposition opened at London, 1851, Thursday.
2–Battle of Lutzen, Ger., Napoleon defeats the Allies, 1813, Sunday.
3–Death of Thomas Hood, English Poet, 1845, Saturday.
4–Anarchist Riot in Chicago–many policemen killed, 1886, Tuesday.
5–Death of Napoleon Bonaparte on Isle of St. Helena, 1821, Saturday.
6–Death of Sir William Hamilton, Eng. Mathematician, 1856, Tuesday.
7–Battle of Baton Rouge, La., captured by Farragut, 1862, Wednesday.
8–Innocent XIII. is made Pope at Rome, 1721, Monday.
9–Battle of Resaca de la Palma, Taylor defeats Mexicans, 1846, Saturday.
10–Centennial Exposition at Philadelphia opens, 1876, Wednesday.
11–War declared by United States against Mexico, 1848, Monday.
12–Battle Spottsylvania C.H., Va., Hancock captures Johnson, 1864, Thursday.
13–Naturalization Treaty made with Great Britain, 1870, Friday.
14–Vaccination discovered by Edward Jenner, of Eng., 1796, Saturday.
15–Protective Tariff adopted by U.S. Government, 1828, Thursday.
16–Acquittal of President Johnson–impeachment, 1868, Saturday.
17–Great Fire in St. Louis, Mo., much suffering, 1849, Thursday.
18–Napoleon Bonaparte made Emperor of the French, 1804, Friday.
19–Last of the Crusaders to Palestine ended, 1291, Saturday.
20–Mecklenburg (N.C.) Declaration of Independence, 1775, Saturday.
21–Terrible Fighting in Paris (21 to 27), 1871, Sunday, Monday, etc.
22–Chest. Sumner assaulted in Senate by Rep. Brooks, 1856, Thursday.
22–Jamestown, Va., settled–first per. Eng. set's in U.S., 1607, Saturday.
24–Missouri Compromise repealed by Congress, 1854, Wednesday.
25–Gens. Howe, Burgoyne and Clinton arrive at Boston, 1775, Thursday.
26–Massacre of Pequods at Ft. Mystic, Conn., by Mason, 1637, Friday.
27–First Telegraph operated in U.S.–Washington to Baltimore, 1844, Monday.
28–Noah Webster, American lexicographer, died, 1843, Sunday.
29–Restoration of Monarchical Government in Fno., 1660, Tuesday.
30–Columbus remarks on his third voyage of discovery, 1498, Wednesday.
31–Copyright Law first enacted by Congress, 1790, Monday.

JUNE

1–The "Invincible Armada" sails from Lisbon, Spain, 1588, Saturday.
2–Naval Battle on Lake Champlain–Brit. defeat Amer., 1813, Wednesday.
3–Battle of Cold Harbor, Va., Grant overthrows Lee, 1864, Friday.
4–Treaty of Peace between U.S and Tripoli, 1805, Tuesday.
5–First Balloon ascension, from Lyons, France, 1783, Thursday.
6–An American Congress first proposed by James Otis, 1765, Thursday.
7–Coronation of Louis XIV. King of France, 1654, Wednesday.
8–Jamestown, Va., abandoned, "Starving Time," 1610, Friday.

9-Death of Charles Dickens, English novelist, 1870, Thursday.
10-Ferdinand De Soto landed at Tampa Bay, Fla., 1539, Tuesday.
11-Vigilance Committee formed in San Francisco, 1851, Wednesday.
12-Death of William Cullen Bryant, Amer. poet, 1878, Wednesday.
13-The Fugitive Slave Bill repealed by Congress, 1864, Monday.
14-National Flag, with stars first added, adopted by Congress, 1777, Saturday.
15-Washington appointed Command-in-Chief, 1775, Thursday.
16-Convention at Cincinnati nom. Hayes and Wheeler, 1876, Friday.
17-Battle of Bunker Hill, first real in Revolution, 1775, Saturday.
18-Battle of Waterloo, Belgium-Napoleon defeated, 1815, Sunday.
19-Naval Action, "Kearsarge" sinks the "Alabama", 1864, Sunday.
20-Alaska ceded by Russia to the United States, 1867, Monday.
21-Nine States Ratified Constitution making it binding, 1788, Saturday.
22-Arkansas reconstructed after secession, 1868, Monday.
23-Battle of Springfield, N.J., Brit. defeated by Greene, 1780, Friday.
24-Newfoundland discovered by the Cabots, 1497, Sunday.
25-Gen. Custer, U.S.A., killed by Sioux Indians, Dt., 1876, Sunday.
26-Battle of Mechanicsville, Va., McClellan defeats Lee, 1862, Thursday.
27-Joseph Smith, the Mormon Prophet, murdered, 1844, Thursday.
28-Victoria Alexandrina Edward crowned Queen of Eng., 1838, Thursday.
29-Pope Pius VII. condemns Bible Societies by his Bull, 1817, Sunday.
30-Charles J. Guiteau, assassin of Pres't Garfield, hanged, 1882, Friday.

JULY.

1-Battle of Gettysburg, Pa., Meade defeats Lee, 1863, Wednesday, etc.
2-President Garfield shot-fatally wounded-by Guiteau, 1881, Saturday.
3-U.S. Mint established in San Francisco, Cal., 1852, Saturday.
4-Independence of United States declared, 1776, Thursday.
5-Cumbanian (Va.) Presbyterian Church organized, 1811, Tuesday.
6-John Huss, Bohem. relig. refor mer, burnt alive, 1415, Saturday.
7-California declared a part of the United States, 1846, Tuesday.
8-Battle of Pultowa, Russ., Peter the Great defeats Chas. XII., 1709, Friday.
9-Braddock defeated by French and Indians on the Monongahela, 1755, Saturday.
10-Bill to re-charter U.S. Bank vetoed by Pres't Jackson, 1832, Tuesday.
11-Nine U.S. Senators expelled from Congress for Treason, 1861, Thursday.
12-Canada invaded by General Hull, 1812, Sunday.
13-Draft Riots in the City of New York, 1863, Monday.
14-Fall of the Bastile, Paris-French Revolution, 1789, Tuesday.
15-First Crusade to Palestine came to an end, 1099, Friday.
16-Era of the Hegira begins-Flight of Mohammed, 622, Friday.
17-Yellow Fever first appeared in New Orleans, 1796, Sunday.
18-Papal infallibility proclaimed by Vatican Council, 1870, Monday.
19-War declared by France against Germany, 1870, Tuesday.
20-Confederate Capitol removed to Richmond, Va., 1861, Saturday.
21-Proclamation by Pres't Hayes for rioters to disperse, 1877, Saturday.
22-Atlanta, Ga., besieged by General Sherman, 1864, Friday.
23-Ex-Pres't Grant died at Mt. McGregor, N.Y., 1885, Thursday.
24-The Mormons arrive at Salt Lake Valley, 1847, Saturday.
25-Lieut. Gen. Grant promoted to rank of General, 1866, Tuesday.
26-Capture of Ticonderoga, N.Y., by Amherst, 1759, Thursday.
27-The Bank of England first chartered, 1694, Friday.
28-Fourteenth Amendment to Constitution adopted, 1868, Tuesday.
29-Treaty of Amity and Commerce made with Japan, 1858, Thursday.
30-Great Mine under Petersburg, Va., explodes, 1864, Saturday.
31-LaFayette made Major General by Congress, 1777, Thursday.

AUGUST.

1-Battle of the Nile-Nelson defeats French fleet, 1798, Wednesday.
2-Battle of Cannæ, Italy-Hannibal defeats Romans, 216 B.C., Monday.
3-Columbus set sail on his first voyage of discovery, 1492, Friday.
4-Abolition of feudal privileges in Western Europe, 1789, Tuesday.
5-Battle of Mobile Bay, Farragut repulses fleet, 1864, Friday.
6-Dissolution of the Holy Roman Empire, 1806, Wednesday.
7-Battle of Thermopylæ, heroism of Leonidas, 480 B.C., Saturday.
8-Wilmot Proviso, restricting Slavery, presented in House, 1846, Saturday.
9-New York passed to the control of the Dutch, 1673, Sunday.
10-Observatory at Greenwich, England, founded, 1675, Tuesday.
11-First attempt to lay Atlantic Cable fails, 1857, Tuesday.
12-Death of Geo. Stephenson, inventor of Steam Engine, 1848, Saturday.
13-Battle of Blenheim, Bavaria, Marlborough defeats French, 1704, Sunday.
14-King's College, London, England, incorporated, 1829, Friday.
15-La Fayette's second arrival in America, 1824, Sunday.
16-Detroit, Mich., surrendered to British by Hull, 1812, Sunday.
17-Death of Frederick the Great, King of Prussia, 1786, Friday.
18-Battle of Yellow Medicine, Minn., Sioux massacre Whites, 1862, Monday.
19-Paulus Hook (Jersey City) captured by Maj. Henry Lee, 1779, Thursday.
20-End of Civil War by Proclamation of Pres't Johnson, 1866, Monday.
21-The Puritans embark from Delfthaven, Eng., 1620, Tuesday.
22-French "Directory," consisting of five, established, 1795, Saturday.
23-Battle of Staten Island, British defeat Sullivan, 1777, Saturday.
24-Washington City captured by British, Pub. Build's burd, 1814, Wed'day.
25-Montreal, Canada, sacked by Iroquois Indians, 1689, Sunday.
26-Julius Caesar invades the British Isles, 55 B.C., Sunday.
27-Battle of Long Island, British defeat Americans, 1776, Tuesday.
28-Great Britain abolishes slavery, 1833, Wednesday.
29-Augusta, Ga., founded-oldest town in the State, 1566, Wednesday.
30-Mail Steamer Teuton lost with 200 lives, 1881, Tuesday.
31-Great Charleston, S.C., earthquake commenced, 1886, Tuesday.

SEPTEMBER.

1-Battle of Sedan, France, French repulsed by Ger., 1870, Thursday.
2-Great London Fire, 436 acres burned over, 1666, Sunday.
3-Death of Oliver Cromwell, Lord Protec. Eng. Com'lth, 1658, Friday.
4-Fulton's first steamboat voyage on the Hudson, 1807, Friday.
5-The Pacific Ocean discovered by Balboa, 1513, Monday.
6-Shakspeare Jubilee at Stratford-on-Avon, 1769, Wednesday.
7-Declaration of Independence by Empire of Brazil, 1822, Saturday.
8-Destruction of Jerusalem by Titus-1,100,000 persons slain, 70.
9-The United States of America first so called, 1776, Monday.
10-Commodore Perry's Victory on Lake Erie, 1813, Friday.
11-Battle of the Brandywine, Howe def. Washington, 1777, Thursday.
12-Fugitive Slave Law passed by Congress, 1850, Thursday.
13-Battle of Quebec-General Wolfe killed, 1759, Thursday.
14-New Style Calendar adopted by England, 1752, Thursday.
15-Ordinance of 1787 adopted by Continen'l Cong., 1787, Saturday.
16-Fahrenheit, inventor of Thermometer, died, 1736, Thursday.
17-Constitution of United States passed Convention, 1787, Monday.
18-Anne Hutchinson, religious enthusiast, arr. at Boston, 1634, Thursday.
19-Death of President Garfield at Elberon, N.J., 1881, Monday.
20-King William's War ended by treaty of Ryswick, 1697, Monday.
21-Death of Sir Walter Scott, noted Scotch author, 1832, Friday.
22-Arnold's Treason at West Point discovered, 1780, Friday.
23-John Paul Jones' great naval victory, 1779, Thursday.
24-Suspension of the Habeas Corpus Act in U.S., 1862, Wednesday.
25-Battle of Montreal, Ethen Allen taken prisoner, 1775, Monday.
26-Philadelphia captured by the British army, 1777, Friday.
27-First passenger rail road opened in England, 1825, Tuesday.
28-Battle of Marathon, Greeks defeat Persians, 490 B.C., Wednesday.
29-South Sea Bubble burst (scheme to pay nat. debt), 1720, Thursday.
30-Treaty with France-Peace, Commerce, etc., 1800, Tuesday.

OCTOBER.

1-Stanford University, Palo Alto, Cal., opened, 1891, Thursday.
2-Execution of Major Andre, British spy, 1780, Monday.
3-Death of Miles Standish, great Indian fighter, 1656, Tuesday.
4-Independence of Belgium declared, 1830, Monday.
5-Battle of the Thames, Can., Harrison defeats Proctor, 1813, Tuesday.
6-Forts Clinton and Montgomery taken by Clinton, 1777, Monday.
7-The Colonial Congress meets in New York, 1765, Monday.
8-Great Chicago fire commenced-Loss $290,000,000, 1871, Sunday.
9-International Postal Treaty concluded at Berne, 1874, Friday.
10-Battle of Tours, Fr., Martel defeats Saracens, 732, Friday.
11-New Netherland granted to Amsterdam Co., 1614, Tuesday.
12-Christopher Columbus discovers America, 1492, Friday.
13-Death of R.E. Lee, Confederate General, 1870, Thursday.
14-Battle of Hastings, Duke of Normandy def. Harold, 1066, Saturday.
15-Death of Socinus, 26, at Solleure, Switzerland, 1801, Wednesday.
16-Houses of Parliament, London, burned, 1834, Thursday.
17-First Legislative Assembly of New York meets, 1683, Wednesday.
18-King George's War ends by Treaty of Aix-la-Chapelle, 1748, Tuesday.
19-Cornwallis surrenders to Washington at Yorktown, 1781, Friday.
20-Battle of Salamis, Greeks defeat Persians, 480 B.C., Wednesday.
21-Great Earthquake at San Francisco, Cal., 1868, Wednesday.
22-Revocation of Edict of Nantes by Louis XIV, 1685, Tuesday.
23-First Parliament of Great Britain meets, 1707, Thursday.
24-Death of Daniel Webster, Amer. statesman, 1852, Sunday.
25-Frig. "United States" captures Brit. Frig. "Macedonia," 1812, Sunday.
26-Com. of Safety appointed by Mass. Prov. Congress, 1774, Wed'day.
27-Island of Cuba discovered by Christopher Columbus, 1492, Sat'day.
28-Battle of Adams, Fr. defeats Persians, 1800 B.C., Wednesday.
29-Infamous execution of Sir Walter Raleigh, 1818, Thursday.
30-Death of Edmund Cartwright, inventor of Loom, 1823, Thursday.
31-Charter of Connecticut hid in famous Charter Oak, 1687, Monday.

NOVEMBER.

1-Death of Oliver P. Morton, prominent U.S. Senator, 1877, Thursday.
2-National Thanksgiving for the Peace, 1865, Thursday.
3-American debts funded by Act of Congress, 1790, Monday.
4-Penn's Treaty of Peace and Friendship with Indians, 1682, Saturday.
5-Gunpowder Plot, London, Guy Fawkes arrested, 1605, Tuesday.
6-British Orders in Council passed, 1793, Wednesday.
7-Battle of Tippecanoe, Ind., Harrison defeats Indians, 1811, Thursday.
8-Re-election of Pres't Lincoln to the Presidency, 1864, Tuesday.
9-Great fire at Boston, loss, $73,000,000, 1872, Saturday.
10-Centennial Exposition at Philadelphia closed, 1876, Friday.
11-Gen. Sherman begins his march to the sea, 1864, Friday.
12-Berlin, Germany, declared in a state of siege, 1848, Sunday.
13-Mason and Dixon, surveyors, arr. at Philadelphia, 1763, Sunday.
14-Chas. Carroll, last survir. signer of Dec. Indepen., died, 1832, Wed'day.
15-The Articles of Confederation adopted, 1777, Saturday.
16-Corner stone of new Building Edifice, Yale, laid, 1789, Monday.
17-Congress meets for first time in Washington, 1800, Monday.
18-New standard railroad time adopted in U.S., 1883, Sunday.
19-Nullification Ordinance passed by South Carolina, 1832, Monday.
20-Fire Ship Destroys British Fleet at Algiers, 1816, Sunday.
21-Berlin Decree issued by Napoleon Bonaparte, 1806, Friday.
22-Battle Ft. Pickens, Fla., Confederates defeat Bragg, 1861, Friday.
23-Battle Lookout Mountain, "above the clouds," 1863, Monday.
24-Discovery of New Zealand by Abel Tasman, 1642, Tuesday.
25-Evacuation of New York City by British army, 1783, Tuesday.
26-Oliver Ellsworth, Ex-U.S. Chief Justice, died, 1807, Thursday.
27-Hoosac Tunnel opened, 23,700 feet long, 1873, Thursday.
28-Battle of Tippecanoe, Gen. Harrison defeats Indians, 1811, Friday.
29-Death of Thos. Wolsey, Eng. Cardinal and Statesman, 1530, Tuesday.
30-Revolution closed by treaty with Great Brit., 1782, Saturday.

DECEMBER.

1-Portugal becomes independent of Spain, 1640, Tuesday.
2-John Brown executed at Charlestown, Va., 1859, Friday.
3-Battle of Hohenlinden, French defeat Austrians, 1800, Sunday.
4-Washington's Farewell Address to the Army, 1783, Thursday.
5-Battle of Coffeeville, Miss., Confed. loss heavy, 1862, Friday.
6-Amer. Anti-Slavery Society formed at Philadel'a, 1833, Friday.
7-Noah's Deluge said to have commenced, 2348 B.C., Saturday.
8-Proclamation of Conditional Amnesty, Pres. Lincoln, 1863, Tuesday.
9-Buffalo, N.Y., burned by British and Indians, 1813, Thursday.
10-Martin Luther burns the papal bull, 1520, Monday.
11-Amer. Army goes into winter quarters, 1777, Thursday.
12-Kalakaua, King Hawaiian Isls., visits Washington, 1874, Saturday.
13-Battle of Fredericksburg, Union Army repulsed, 1862, Saturday.
14-Washington dies at Mt. Vernon, (10 p.m.) 1799, Saturday.
15-Hartford Convention (anti-War) meets, 1814, Thursday.
16-Boston Tea Party, 342 chests overboard, 1773, Thursday.
17-Milan Decree (Brit. Blockade) issued by Napoleon, 1807, Thursday.
18-Constitutional Amendment abolishing slavery, 1865, Monday.
19-Pres't Lincoln calls for 300,000 volunteers, 1864, Monday.
20-South Carolina passes Ordinance of Secession, 1860, Thursday.
21-Pilgrim Fathers land at Plymouth Rock, 1620 (N.S.), Monday.
22-Massacre of 100 soldiers at Ft. Kearney, 1866, Saturday.
23-Washington resigns his commission, 1783, Tuesday.
24-Treaty of Ghent signed-ending war, 1814, Saturday.
25-Charlemagne crowned Emperor of the West, 800, Friday.
26-Massacre of 36,000 Turks at Ismail, Russ., 1790, Sunday.
27-Explosion of ser. "West Point," York Riv., Va., 1881, Tuesday.
28-Westminster Abbey, London, dedicated, 1065, Wednesday.
29-Battle of Narragansett Swamp, King Philip defeated, 1675, Wed'day.
30-Cession of Gadsden Purchase to United States, 1853, Friday.
31-Battle of Murfreesboro, Tenn., Union victory, 1862, Wed'day.

Table of Distances, Mean Annual Temperatures and Average Annual Rainfalls.

A Chart showing the Mail-Route Distances from New York to the Representative Cities of the World,

and the Air-Line Distances between the Leading Cities of the United States; also, the Mean Annual Temperature, and Average Annual Rainfall.

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FROM NEW YORK	ENGLISH MILES.	MEAN AN. TEMPER.	AV. AN. RAINFALL.
TO ADELAIDE via SAN FRANCISCO	12845	56.80	22.00
" ALEXANDRIA via LONDON	6,150	69.00	10.00
" ALGIERS via LONDON	4,550	64.30	27.00
" AMSTERDAM via LONDON	3,385	49.90	21.37
" ATHENS via LONDON	5,655	63.00	10.80
" AUCKLAND via SAN FRANCISCO	11,465	51.00	48.00
" BAHIA, BRAZIL	5,870	78.00	60.00
" BARCELONA	4,084	63.00	18.00
" BATAVIA, JAVA via LONDON	12,070	78.69	75.89
" BERLIN via LONDON	4,395	48.20	23.56
" BERNE via LONDON	4,795	46.40	24.00
" BIRMINGHAM via LIVERPOOL	3,630	48.20	23.00
" BOMBAY via LONDON	9,765	81.30	75.00
" BORDEAUX	3,975	57.00	34.00
" BOULOGNE	3,640	54.40	24.00
" BRISTOL via LIVERPOOL	3,865	51.76	27.00
" BRUSSELS	3,840	50.70	28.96
" BUCHAREST via CONSTANTINOPLE	6,110	46.40	15.00
" BUENOS AYRES	8,045	62.80	....
" CAIRO via LONDON	6,255	72.20	3.00
" CALCUTTA via LONDON	11,120	82.40	76.00
" CANTON via SAN FRANCISCO	10,670	71.00	39.00
" CAPE TOWN via LONDON	11,245	62.00	23.00
" CONSTANTINOPLE via LONDON	5,810	56.50	29.00
" COPENHAGEN via LONDON	4,660	43.00	23.25
" DRESDEN via BERLIN	4,488	49.10	22.00
" EDINBURGH via LONDON	4,140	47.10	38.00
" FLORENCE via LONDON	4,800	59.20	41.00
" FRANKFORT via LONDON	4,138	49.60	22.00
" GENEVA	4,290	52.70	31.07
" GLASGOW	3,775	49.80	21.33
" GREYTOWN via NEW ORLEANS	2,810	80.00	63.505
" HALIFAX	645	43.10	43.08
" HAGUE, THE via LONDON	3,950	52.00	27.37
" HAMBURG via LONDON	4,185	48.00	27.00
" HAVANA	1,400	73.10	91.07
" HONG KONG via SAN FRANCISCO	10,590	73.00	101.00
" HONOLULU via SAN FRANCISCO	5,645	75.00	22.00
" JERUSALEM via LONDON	6,455	62.60	16.00
" LISBON	3,184	61.40	27.01
" LIVERPOOL	3,540	50.80	34.05
" LONDON	3,740	50.80	24.04
" MADRID via LONDON	4,975	58.20	9.00
" MECCA, ARABIA via LONDON	7,150	79.00	....
" MELBOURNE via SAN FRANCISCO	12,265	57.00	28.00
" MEXICO CITY (RAILROAD)	3,750	60.90	....
" MOSCOW via ST. PETERSBURG	5,770	40.00	23.00
" PANAMA	2,355	80.00	60.00
" PARIS	4,020	51.30	22.64
" PEKIN via SAN FRANCISCO	10,820	51.30	27.00
" RIO DE JANEIRO	6,730	77.20	58.00
" ROME via LONDON	5030	60.50	30.86
" ST. PETERSBURG via LONDON	5,370	39.60	17.03
" SHANGHAI via SAN FRANCISCO	9,920	59.00	50.00
" SINGAPORE via LONDON	11,770	80.70	90.00
" STOCKHOLM via LONDON	4,975	42.30	20.04
" SYDNEY via SAN FRANCISCO	11,570	65.80	49.00
" TORONTO	350	44.10	35.17
" TUNIS via LONDON	4,950	68.80	25.00
" VALPARAISO via PANAMA	5,910	64.00	16.00
" WARSAW via COPENHAGEN	5220	44.20	22.80
TO WINNIPEG	1,600	35.03	16.83
" YOKOHAMA via SAN FRANCISCO	8,725	57.10	69.25
" ZANZIBAR via CAPE TOWN	14,045	76.00	60.00

EXPLANATION OF THE TABLE.

In the three rectangles headed FROM NEW YORK is given a list of the representative cities of the world, with their mail-route distances from New York, together with their mean annual temperature and average annual rain-fall. These cities have not been selected because of their size, but because they represent a certain section of the surface of the earth, from which the approximate distances of surrounding points may be ascertained. — Thus Cape Town in South Africa will serve from which to determine the approximate distances of all other points in that section. To find the air-line distances between any two cities given at the right, note the number of the lower city in the list, then from the upper city descend the column indicated by the arrow to the number of the other city, where is given the airline distance between them — thus from Cincinnati to San Francisco is 1955 miles. Approximate distances may be obtained by the use of dividers.

between any two cities	MEAN AN. TEMPER.	AV. AN. RAINFALL.
1 ATLANTA, Ga.		
2 AUGUSTA, Me.	1045	
3 AUSTIN, Tex.	1720	770
4 BISMARCK, N.D.	1100 1420	1200
5 BOSTON, Mass.	1420 1600	160 910
6 CHARLESTON, S.C.	785 1400 1015	935 270
7 CHICAGO, Ill.	750 820 710	925 900 585
8 CINCINNATI, O.	250 510 710	935 915 800 375
9 DENVER, Col.	1030 880 1400	1700 520 740 1401 1165
10 DES MOINES, Ia.	575 495 300	930 1115 485 770 1175 720
11 DETROIT, Mich.	540 1100 240	750 668 575 890 1100 650 595
12 HELENA, Mon.	1390 925 575	1410 1200 1870 1940 525 1315 1940 1640
13 INDIANAPOLIS, Ind.	1330 235 415	940 90 165 575 765 860 890 865 410
14 JACKSONVILLE, Fla.	675 1900 800	1000 1400 610 840 2001 1000 1470 810 1145 285
15 KANSAS CITY, Mo.	905 450 985	615 180 535 575 395 905 1205 600 600 1250 645
16 LITTLE ROCK, Ark.	300 670 475	1265 708 472 718 510 545 700 1210 915 414 1300 445
17 MILWAUKEE, Wis.	590 425 915	255 1155 540 300 875 310 80 910 815 650 985 970 660
18 MONTGOMERY, Ala.	730 375 635	285 510 1610 705 145 1115 470 645 365 1055 1220 650 1135 150
19 NASHVILLE, Tenn.	255 475 300	450 480 265 1415 470 525 970 260 395 435 925 1000 715 1030 220
20 NEW ORLEANS, La.	440 260 685	350 650 490 695 1585 915 600 1035 690 810 595 1300 1255 725 1435 715
21 NEW YORK, N.Y.	140 740 885	710 1035 1050 815 610 1860 470 1000 1550 550 700 645 1801 350 1455 315 740
22 OMAHA, Neb.	1100 815 585	705 415 525 175 1060 520 855 640 720 455 590 415 1020 1230 435 730 1275 795
23 PHILADELPHIA, Pa.	1050 80 1060	665 760 665 965 980 745 560 1810 420 935 1500 475 635 560 1280 1310 365 410 645
24 PHOENIX, Ariz.	1985 990 2070	1255 1390 1425 1405 1090 1005 1725 1435 900 1610 1100 575 1520 1400 1775 2210 1070 835 2265 1525
25 PORTLAND, Ore.	2000 2305 1115	2530 1860 1900 2070 1645 1700 1440 2360 1800 525 1900 1405 965 1900 1690 2335 2425 1825 1650 2450 2000
26 RICHMOND, Va.	2270 1900 210	975 295 875 525 600 645 810 965 560 470 1800 430 900 1420 400 600 360 465 1310 1220 600 460
27 SALT LAKE CITY, Ut.	1775 625 505	1845 790 1900 1375 1335 1465 1190 1105 900 1750 1300 400 1425 890 365 1400 1205 1765 2005 670 1030 2050 1525
28 SAN FRANCISCO, Cal.	2585 2345 560	630 2415 1375 2500 1860 1895 1985 1765 1600 1440 2270 1900 800 2010 1485 920 1955 1775 2315 2670 1230 1445 2640 2070
29 SANTE FE, N.Mex.	1915 475 1535	1095 375 1635 645 1715 975 1035 1105 1070 715 645 1400 1085 815 1260 755 280 1150 1035 1440 1855 900 585 1850 1180
30 SITKA, Alas.	2825 935 1900	1760 1925 2775 2750 2490 2750 2210 2415 2125 3000 2385 1175 2410 2035 1745 2495 2240 2810 2800 1600 2525 2900 2750
31 St. LOUIS, Mo.	1285 850 1675	1115 700 1655 1225 800 345 875 590 270 485 345 295 235 755 255 1335 465 290 765 300 270 720 1010 765 690 1100 470
32 St. PAUL, Minn.	1460 1925 905	1565 970 935 1400 1215 945 310 975 1035 685 935 275 705 420 1155 500 910 530 460 700 585 2460 1075 1080 350 1025 1100 900
33 TACOMA, Wash.	2365 1665 810	1170 680 700 2265 1201 1095 2300 1335 2345 2055 1925 2100 1645 1730 1470 2400 1835 500 1900 1425 1020 1910 1700 2360 2420 1000 1735 2410 2125
34 TOPEKA, Kan.	1425 425 275	2115 600 1410 845 975 1400 965 1065 170 1115 710 525 700 480 355 60 970 510 960 690 310 480 585 460 960 1265 590 605 1335 775
35 TOLEDO, O.	640 1865 525	430 2370 1235 1980 1410 435 1865 1605 435 630 310 875 425 655 245 650 580 780 190 1390 70 515 1075 175 225 635 630 905 1075 710 560
36 WASHINGTON, D.C.	400 965 2215	895 700 2750 1540 2345 1770 105 2370 1925 115 975 225 925 565 695 625 875 910 645 475 1775 400 885 1420 400 580 465 400 1275 1280 540 550
37 WILMINGTON, N.C.	345 595 1010	2400 1070 775 1950 1530 2400 1840 245 2395 1915 425 1065 540 760 525 490 905 1000 945 350 545 915 630 975 1470 505 740 150 675 1440 1140 835 365

PERPETUAL MOONLIGHT CHART.

To Find the Phase of the Moon for Any Day in Any Year.—Add the number of the month to the epact of the required year, and the sum will be the number of the shaded space showing the amount of light and darkness for that month; thus, for July, 1892, 1 (epact for 1892) added to 7 (number of July) equals 8; in space 8, the First Quarter, as shown by the diagonal lines, is on the 1st; Full Moon on the 9th; Last Quarter on the 16th; New Moon on the 24th, and First Quarter again on the 31st.

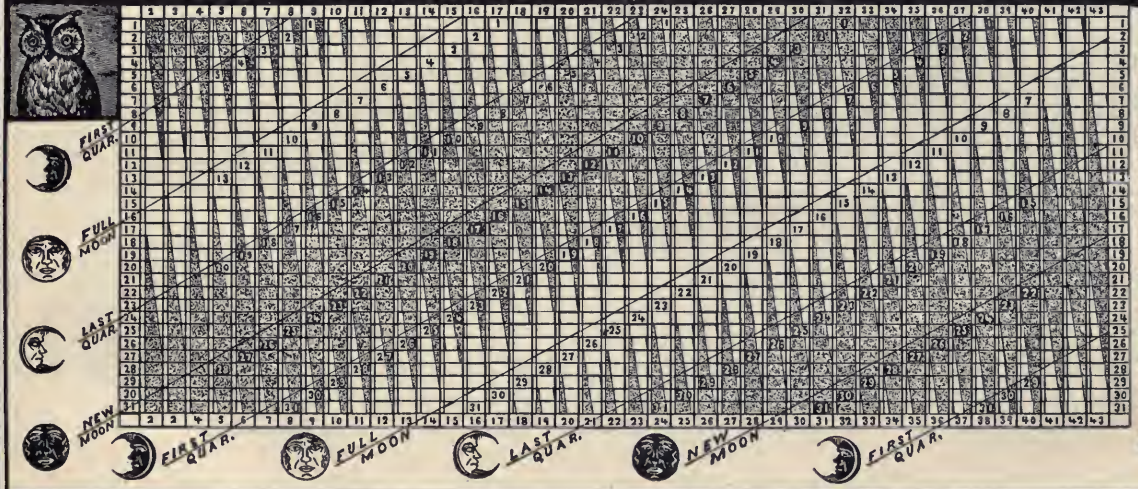
The numbers at the right and left margins, also those running diagonally across the chart, are the days of the month; those at the top and bottom margins are the numbers of the spaces showing the amount of light and darkness for any month.

Owing to solar and lunar inequalities and the inequalities in the length of the months, the astronomical New Moon may occur one or two days before or after the *mean time* as shown by the chart.

1-JAN.	2-FEB.	3-MAR.	4-APRIL.	5-MAY.	6-JUNE.	7-JULY.	8-AUG.	9-SEPT.	10-OCT.	11-NOV.	12-DEC.

TABLE OF EPACTS FROM THE YEAR 1750 TO THE YEAR 2050.

1700	1800–4	1900–29	2000–24
50,22 60,12 70, 3 80,23 90,14	1,15 11, 6 21,26 31,17 41, 7 51,28 61,18 71, 9 81,30 91,20	1,10 11,30 21,21 31,11 41, 2 51,22 61,13 71, 3 81,24 91,14	1, 5 11,25 21,16 31, 6 41,27
51, 3 61,23 71,14 81, 4 91,25	2,26 12,17 22, 7 32,28 42,18 52, 9 62,30 72,20 82,11 92, 1	2,21 12,11 22, 2 32,22 42,13 52, 3 62,24 72,14 82, 5 92,25	2,16 12, 6 22,27 32,17 42, 8
52,14 62, 4 72,25 82,15 92, 6	3, 7 13,28 23,18 33, 9 43,30 53,20 63,11 73, 1 83,22 93,12	3, 2 13,22 23,13 33, 3 43,24 53,14 63, 5 73,25 83,16 93, 6	3,27 13,17 23, 8 33,29 43,19
53,25 63,15 73, 6 83,26 93,17	4,18 14, 9 24,30 34,20 44,11 54, 1 64,22 74,12 84, 3 94,23	4,13 14, 3 24,24 34,14 44, 5 54,25 64,16 74, 6 84,27 94,17	4, 8 14,29 24,19 34,10 44,30
54, 6 64,26 74,17 84, 7 94,28	5,30 15,20 25,11 35, 1 45,22 55,12 65, 3 75,23 85,14 95, 4	5,24 15,14 25, 5 35,25 45,16 55, 6 65,27 75,17 85, 8 95,29	5,19 15,10 25,30 35,21 45,11
55,17 65, 7 75,28 85,18 95, 9	6,11 16, 1 26,22 36,12 46, 3 56,23 66,14 76, 4 86,25 96,15	6,16 16,25 26,16 36, 6 46,27 56,17 66, 8 76,29 86,19 96,10	6,30 16,21 26,11 36, 2 46,22
56,28 66,18 76, 9 86,30 96,20	7,22 17,12 27, 3 37,23 47,14 57, 4 67,25 77,15 87, 6 97,26	7,16 17, 6 27,27 37,17 47, 8 57,29 67,19 77,10 87,30 97,21	7,11 17, 2 27,22 37,13 47, 3
57, 9 67,30 77,20 87,11 97, 1	8, 3 18,23 28,14 38, 4 48,25 58,15 68, 6 78,26 88,17 98, 7	8,27 18,17 28, 8 38,29 48,19 58,10 68,30 78,21 88,11 98, 2	8,22 18,13 28, 3 38,24 48,14
58,20 68,11 78, 1 88,22 98,12	9,14 19, 4 29,25 39,15 49, 6 59,26 69,17 79, 7 89,28 99,18	9, 8 19,29 29,19 39,10 49,30 59,21 69,11 79, 2 89,22 99,13	9, 3 19,24 29,14 39, 5 49,25
59, 1 69,22 79,12 89, 3 99,23	10,25 20,15 30, 6 40,26 50,17 60, 7 70,28 80,18 90, 9	10,19 20,10 30,30 40,21 50,11 60, 2 70,22 80,13 90, 3	10,14 20, 5 30,25 40,16 50, 6



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TWILIGHT TABLE.

Showing the beginning and end of twilight for the first, eleventh, and twenty-first days of every month, as seen on the parallels of 27, 30, 33, 36, 39, 42, 45, and 48 north latitude, and by estimation, will serve equally well for adjacent points.

Months.	LATITUDE. 27° Begins A.M.	27° Ends P.M.	30° Begins A.M.	30° Ends P.M.	33° Begins A.M.	33° Ends P.M.	36° Begins A.M.	36° Ends P.M.	39° Begins A.M.	39° Ends P.M.	42° Begins A.M.	42° Ends P.M.	45° Begins A.M.	45° Ends P.M.	48° Begins A.M.	48° Ends P.M.
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
JAN. 1	5 28	6 45	5 33	6 37	5 38	6 33	5 40	6 28	5 43	6 24	5 48	6 21	5 53	6 10	5 58	6 0
,, 11	5 27	6 50	5 30	6 45	5 36	6 40	5 39	6 34	5 42	6 32	5 45	6 30	5 50	6 18	5 52	6 12
,, 21	5 24	6 54	5 28	6 51	5 33	6 47	5 37	6 42	5 40	6 41	5 41	6 39	5 45	6 31	5 47	6 24
FEB. 1	5 22	7 0	5 26	6 59	5 30	6 57	5 32	6 54	5 35	6 52	5 37	6 50	5 39	6 39	5 42	6 36
,, 11	5 20	7 8	5 22	7 6	5 24	7 7	5 25	7 4	5 26	7 2	5 27	7 0	5 35	6 45	5 36	6 48
,, 21	5 16	7 14	5 16	7 13	5 15	7 13	5 15	7 12	5 15	7 11	5 17	7 9	5 31	7 6	5 15	7 0
MAR. 1	5 8	7 18	5 7	7 18	5 6	7 19	5 5	7 20	5 4	7 21	5 2	7 23	4 58	7 25	4 48	7 27
,, 11	5 0	7 22	4 57	7 24	4 53	7 27	4 51	7 29	4 49	7 31	4 46	7 35	4 43	7 37	4 22	7 39
,, 21	4 50	7 27	4 46	7 31	4 41	7 35	4 38	7 38	4 33	7 42	4 27	7 47	4 21	7 50	4 15	7 54
APR. 1	4 37	7 32	4 29	7 37	4 24	7 43	4 19	7 48	4 14	7 54	4 6	8 2	3 52	8 8	3 45	8 15
,, 11	4 25	7 40	4 18	7 46	4 10	7 52	4 3	7 59	3 56	8 7	3 46	8 16	3 31	8 29	3 18	8 42
,, 21	4 15	7 48	4 5	7 57	3 55	8 2	3 47	8 12	3 37	8 20	3 25	8 32	3 13	8 47	3 56	9 4
MAY 1	4 0	8 0	3 51	8 6	3 42	8 12	3 31	8 22	3 21	8 33	3 6	8 48	2 53	9 7	2 35	9 27
,, 11	3 45	8 11	3 37	8 17	3 30	8 22	3 17	8 33	3 5	8 45	2 47	9 6	2 29	9 31	2 6	9 54
,, 21	3 30	8 21	3 26	8 28	3 21	8 35	3 7	8 44	2 52	8 57	2 31	9 23	2 8	9 52	1 34	10 26
JUNE 1	3 21	8 32	3 17	8 37	3 13	8 43	2 57	9 0	2 41	9 14	2 17	9 38	1 49	10 18	1 9	10 51
,, 11	3 17	8 41	3 13	8 45	3 10	8 51	2 50	9 11	2 36	9 21	2 13	9 51	1 39	10 30	12 24	11 36
,, 21	3 15	8 44	3 11	8 49	3 8	8 54	2 45	9 22	2 38	9 28	2 8	9 55	1 34	10 50	12 10	11 50
JULY 1	3 21	8 42	3 13	8 47	3 13	8 51	2 57	9 5	2 40	9 25	2 14	9 50	1 39	10 37	12 28	11 27
,, 11	3 30	8 37	3 19	8 44	3 20	8 48	3 7	9 0	2 50	9 19	2 24	9 42	1 49	10 16	1 0	10 43
,, 21	3 42	8 27	3 33	8 38	3 29	8 41	3 15	8 52	3 0	9 9	2 39	9 29	2 2	9 58	1 25	10 21
AUG. 1	3 55	8 14	3 47	8 21	3 40	8 30	3 27	8 43	3 15	8 57	2 57	9 16	2 18	9 42	1 50	10 9
,, 11	4 10	8 0	3 0	8 10	3 50	8 19	3 40	8 29	3 29	8 41	3 13	8 57	2 36	9 22	2 12	9 49
,, 21	4 16	7 45	4 6	7 57	3 59	8 7	3 51	8 15	3 41	8 22	3 28	8 35	2 59	9 0	2 34	9 20
SEP. 1	4 20	7 31	4 14	7 41	4 3	7 51	4 2	7 58	3 55	8 4	3 45	8 14	3 24	8 35	3 5	8 51
,, 11	4 25	7 22	4 20	7 30	4 15	7 36	4 11	7 40	4 7	7 46	3 59	7 54	3 50	8 10	3 32	8 25
,, 21	4 29	7 15	4 26	7 17	4 23	7 20	4 20	7 25	4 17	7 28	4 12	7 37	4 5	7 48	3 50	8 7
OCT. 1	4 36	7 8	4 33	7 9	4 31	7 10	4 29	7 11	4 27	7 12	4 24	7 15	4 20	7 30	4 12	7 46
,, 11	4 40	7 0	4 39	6 57	4 39	6 54	4 38	6 55	4 37	6 56	4 35	6 58	4 30	7 19	4 26	7 34
,, 21	4 47	6 46	4 46	6 45	4 46	6 43	4 45	6 47	4 45	6 50	4 44	6 52	4 41	7 3	4 38	7 22
NOV. 1	4 52	6 37	4 53	6 35	4 54	6 33	4 55	6 31	4 57	6 35	4 58	6 39	5 0	6 49	5 2	7 11
,, 11	5 0	6 30	5 1	6 28	5 2	6 26	5 5	6 23	5 7	6 21	5 9	6 19	5 13	6 39	5 16	7 0
,, 21	5 5	6 28	5 7	6 25	5 10	6 22	5 13	6 19	5 16	6 16	5 20	6 12	5 30	6 30	5 32	7 48
DEC. 1	5 10	6 26	5 13	6 23	5 17	6 21	5 21	6 17	5 25	6 14	5 29	6 11	5 37	6 25	5 44	6 37
,, 11	5 15	6 24	5 20	6 22	5 25	6 20	5 29	6 15	5 33	6 12	5 38	6 10	5 44	6 20	5 48	6 24
,, 21	5 20	6 23	5 26	6 20	5 31	6 19	5 36	6 13	5 39	6 10	5 44	6 9	5 48	6 15	5 53	6 12

WEATHER WISDOM.

Weather is the condition of the atmosphere at any time and place with respect chiefly to its temperature, humidity, clearness or cloudiness, rain, fog, or snow, and wind.

Barometer.—In prognosticating the weather by the barometer, notice whether it be greatly above or below the mean height, and the rapidity of its rise or fall. Higher and steady, foretells continued fair weather. Lower and falling, rain, or damp cloudy weather. Rapid rise or fall, continued unsettled weather and much wind.

Clouds.—Clouds are distinguished by their textures, motions, and outlines. The *cirrus*, or "mare's tails," appear at a greater elevation than other forms, and are marked by their light texture, fibrous and sundered, or interlacing as in the far-spreading white cloud which produces the halo. *Small, regularly formed groups of these clouds are frequently seen in fair and settled weather.* The cirri are also the clouds on the fore-part of the storm, where they are usually more abundant, very ragged, and generally blend into a white, far-reaching cloud-bank. The *cumulus*, "thunder-heads," or "cotton bales," are of a hemispherical form, with horizontal base. When they appear in the heat of the day and pass away in the evening, they foretell continued fair weather. If they increase rapidly, sink into the lower atmosphere, and remain as evening approaches, rain is at hand. Loose patches on their surfaces predict showers. The *stratus* appear as a continuous layer of widely extended sheet of cloud, at a lower level than the cumulus, and often touching the earth.

Corona.—Circles around the moon or sun. Growing smaller they indicate rain; growing larger, fair weather.

Fogs.—Fogs indicate settled weather. Morning fogs seldom last till noon.

Frost.—First and last frosts are usually preceded by a temperature much above mean.

Halo (sun-dogs).—Large circles, or parts of circles, about the sun or moon. A halo after fine weather indicates a storm.

Rainbows.—A morning rainbow indicates rain; an evening one, fair weather.

Sky Color.—A deep-blue sky, even if seen through clouds, indicates fair weather; a growing whiteness, a storm.

Sunset Colors.—A gray, lowering sunset, or one where the sky is green or yellowish green, indicates rain. A red sunset foretells fine weather.

Sunrise Colors.—A red sunrise, with lowering clouds later in the morning, indicate rain; a grey sunrise, dry weather.

Visibility.—Unusual clearness of the atmosphere, unusual brightness or twinkling of the stars, indicate rain.

FROM MEN COPY BY THE AUTHOR.

FRACTIONAL MULTIPLICATION TABLE.

THE Table is especially valuable to engravers, electrotypers, and all others having frequent occasion to find the products of numbers, both integral and fractional, not exceeding 20. **To** use the table, select either dimension at the top margin, then descend the column to the other (shown by the small number above the large), where is given the integral product, to which must be added the fractional units. **Example**:—What is the product of $17\frac{5}{8}$ multiplied by $19\frac{7}{8}$? **Solution**.—From 17 at the top descend the column to 19, where is found 323, the integral product; then there are 19 times $\frac{5}{8}$ (shown by 19 above the 323), which $= \frac{95}{8}$; (use the table in multiplying 5 by 19); also 17 times $\frac{7}{8}$ (shown by 17 at the left of the 323), which $= \frac{119}{8}$; adding $\frac{95}{8}$ and $\frac{119}{8}$, the sum is $\frac{214}{8} = 26\frac{3}{4}$; $323 + 26\frac{3}{4} = 349\frac{3}{4}$. The small corner $\frac{5}{8}$ by $\frac{7}{8}$, may be added if desired.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
3	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
4	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
5	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
7	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140
8	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
9	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180
10	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
11	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165	176	187	198	209	220
12	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
13	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260
14	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280
15	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300
16	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320
17	17	34	51	68	85	102	119	136	153	170	187	204	221	238	255	272	289	306	323	340
18	18	36	54	72	90	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360
19	19	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380
20	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400

FROM COPY BY THE AUTHOR.

AN INSTANTANEOUS METHOD OF COMPUTING INTEREST

To find the interest on any sum for any time, at any rate per cent. given in the table, find the interest (1) on the sum for the years; (2) for the months; (3) for the days, and then add the several results together.

AT FOUR PER CENT

DAYS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

To find the interest at 2%, find it at 4% by the table, and take half the amount; for 3%, take half the amount for 6%; for 2½%, take half of 5%; for 3½%, take half of 7%; for 8%, take twice 4%; for 10%, take twice 5%; for 12%, take twice 6%. The table is so constructed as to be the most possible convenient for computing interest with rapidity, the amount and the interest being given together in the same rectangular space, so that when the time is known, simply descend the column to the required amount (the back-hand number) where will be found the interest just beneath it. The interest at any per cent. not given in the table or mentioned above, may be found readily by proportion.

AT SIX PER CENT

DAYS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
AMT.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AMT.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
INTEREST	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
INTEREST	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
INTEREST	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
INTEREST	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
INTEREST	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
INTEREST	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
INTEREST	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
INTEREST	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
INTEREST	0	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
AMT.	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
INTEREST	1	3	5	6	8	10	12	13	15	17	18	20	22	23	25	27	28	30	32	33	35	37	38	40	42	43	45	47	48
AMT.	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
INTEREST	17	33	50	67	83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.33	4.50	4.67	4.83

	MONTHS											YEARS							
	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8
AMT.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTEREST	1	1	2	2	3	3	4	4	5	5	6	6	12	18	24	30	36	42	48
AMT.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
INTEREST	2	2	3	4	5	6	7	8	9	10	11	12	24	36	48	60	72	84	96
AMT.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
INTEREST	2	3	5	6	8	9	11	12	14	15	17	18	36	54	72	90	1.08	1.26	1.44
AMT.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
INTEREST	2	4	6	8	10	12	14	16	18	20	22	24	48	72	96	1.20	1.44	1.68	1.92
AMT.	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
INTEREST	3	5	8	10	13	15	18	20	23	25	28	30	60	90	1.20	1.50	1.80	2.10	2.40
AMT.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
INTEREST	3	6	9	12	15	18	21	24	27	30	33	36	72	1.08	1.44	1.80	2.16	2.52	2.88
AMT.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
INTEREST	4	7	11	14	18	21	25	28	32	35	39	42	84	1.26	1.68	2.10	2.52	2.94	3.36
AMT.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
INTEREST	4	8	12	16	20	24	28	32	36	40	44	48	96	1.44	1.92	2.40	2.88	3.36	3.84
AMT.	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
INTEREST	5	9	14	18	23	27	32	36	41	45	50	54	1.08	1.62	2.16	2.70	3.24	3.78	4.32
AMT.	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
INTEREST	5	10	15	20	25	30	35	40	45	50	55	60	1.20	1.80	2.40	3.00	3.60	4.20	4.80
AMT.	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
INTEREST	50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00
AMT.	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
INTEREST	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	120.00	180.00	240.00	300.00	360.00	420.00	480.00

AT SEVEN PER CENT

DAYS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
AMT.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
INTEREST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
AMT.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
INTEREST	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AMT.	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
INTEREST	2	4	6	8	10	12	14	16	18	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	54	56
AMT.	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
INTEREST	19	39	58	78	97	1.17	1.36	1.56	1.75	1.94	2.14	2.33	2.53	2.72	2.92	3.11	3.31	3.50	3.69	3.89	4.08	4.28	4.47	4.67	4.86	5.06	5.25	5.44	5.64

	MONTHS											YEARS							
	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8
AMT.	1	1	1	2	2	3	4	4	5	5	6	7	7	14	21	28	35	42	49	56
INTEREST	1	1	2	2	3	3	4	4	5	6	7	7	14	21	28	35	42	49	56
AMT.	2	2	2	3	3	4	5	5	6	7	8	8	8	8	8	8	8	8	8	8
INTEREST	2	2	3	3	4	5	5	6	7	8	9	9	14	21	28	35	42	49	56
AMT.	3	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
INTEREST	2	3	4	5	6	7	8	9	11	12	13	14	28	42	56	70	84	98	1.12
AMT.	4	4	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
INTEREST	2	4	5	7	9	11	12	14	16	18	19	21	42	63	84	1.05	1.26	1.47	1.68
AMT.	5	5	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
INTEREST	2	5	7	9	12	14	16	19	21	23	26	28	56	84	1.12	1.40	1.68	1.96	2.24
AMT.	6	6	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
INTEREST	3	5	8	10	13	15	18	20	23	25	28	30	70	1.05	1.40	1.75	2.10	2.45	2.80
AMT.	7	7	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
INTEREST	4	7	11	14	18	21	25	28	32	35	39	42	84	1.26	1.68	2.10	2.52	2.94	3.36
AMT.	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
INTEREST	4	8	12	16	20	25	29	33	37	41	45	49	98	1.47	1.96	2.45	2.94	3.43	3.92
AMT.	9	9	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
INTEREST	5	9	14	19	23	28	33	37	42	47	51	56	1.12	1.68	2.24	2.80	3.36	3.92	4.48
AMT.	10	10	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
INTEREST	5	11	16	21	26	32	37	42	47	53	58	63	1.26	1.89	2.52	3.15	3.78	4.41	5.04
AMT.	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
INTEREST	6	12	18	23	29	35	41	47	53	58	64	70	1.40	2.10	2.80	3.50	4.20	4.90	5.60
AMT.	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
INTEREST	58	1.17	1.75	2.33	2.92	3.50	4.08	4.67	5.25	5.83	6.42	7.00	14.00	21.00	28.00	35.00	42.00	49.00	56.00
AMT.	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
INTEREST	5.83	11.67	17.50	23.33	29.17	35.00	40.83	46.67	52.50	58.33	64.17	70.00	140.00	210.00	280.00	350.00	420.00	490.00	560.00

COMPOUND INTEREST TABLES.

1—TABLE NUMBER—1.

Showing the Accumulation of Principal and Interest on one Dollar, the Interest being compounded annually.

To use Tables Nos. 1 and 2, observe at what intervals the interest is payable, also the number of such intervals, and the rate corresponding to each. Find from the tables the compound amount of $1 for this rate and number of intervals, and multiply it by the given principal. **If** the number of years be greater than 30, find the product of the amounts for any two numbers of years. Thus, the amount for 47 years at 2% = 1.8113 (am't for 30 yrs.) X 1.4002 (am't for 17 yrs)

Yrs.	2%	2½%	3%	3½%	4%	4½%	5%	6%	7%	8%	9%	10%
1	1.0200	1.0250	1.0300	1.0350	1.0400	1.0450	1.0500	1.0600	1.0700	1.0800	1.0900	1.1000
2	1.0404	1.0506	1.0609	1.0712	1.0816	1.0920	1.1025	1.1236	1.1449	1.1664	1.1881	1.2100
3	1.0612	1.0769	1.0927	1.1087	1.1248	1.1411	1.1576	1.1910	1.2250	1.2597	1.2950	1.3310
4	1.0824	1.1038	1.1255	1.1475	1.1698	1.1925	1.2155	1.2625	1.3108	1.3605	1.4116	1.4641
5	1.1041	1.1314	1.1593	1.1877	1.2166	1.2462	1.2763	1.3382	1.4025	1.4693	1.5386	1.6105
6	1.1261	1.1597	1.1940	1.2292	1.2653	1.3022	1.3401	1.4185	1.5007	1.5868	1.6771	1.7715
7	1.1486	1.1887	1.2298	1.2723	1.3159	1.3608	1.4071	1.5036	1.6058	1.7138	1.8280	1.9487
8	1.1716	1.2184	1.2667	1.3168	1.3685	1.4221	1.4774	1.5938	1.7182	1.8509	1.9925	2.1436
9	1.1951	1.2488	1.3047	1.3629	1.4233	1.4861	1.5513	1.6895	1.8384	1.9990	2.1719	2.3579
10	1.2190	1.2801	1.3439	1.4106	1.4802	1.5529	1.6289	1.7908	1.9671	2.1589	2.3673	2.5937
11	1.2433	1.3121	1.3842	1.4599	1.5394	1.6228	1.7103	1.8983	2.1048	2.3316	2.5804	2.8531
12	1.2682	1.3449	1.4257	1.5110	1.6010	1.6959	1.7958	2.0122	2.2522	2.5181	2.8126	3.1384
13	1.2936	1.3785	1.4685	1.5639	1.6650	1.7722	1.8856	2.1329	2.4098	2.7196	3.0658	3.4522
14	1.3194	1.4129	1.5126	1.6187	1.7317	1.8519	1.9799	2.2609	2.5785	2.9372	3.3417	3.7975
15	1.3458	1.4483	1.5579	1.6753	1.8009	1.9353	2.0789	2.3965	2.7590	3.1722	3.6425	4.1772
16	1.3728	1.4845	1.6047	1.7340	1.8730	2.0223	2.1828	2.5403	2.9521	3.4259	3.9703	4.5949
17	1.4002	1.5218	1.6528	1.7946	1.9479	2.1134	2.2920	2.6927	3.1588	3.7000	4.3276	5.0544
18	1.4282	1.5596	1.7024	1.8575	2.0258	2.2085	2.4066	2.8543	3.3799	3.9960	4.7171	5.5599
19	1.4568	1.5986	1.7535	1.9225	2.1068	2.3078	2.5269	3.0256	3.6165	4.3157	5.1416	6.1159
20	1.4859	1.6386	1.8061	1.9898	2.1911	2.4117	2.6533	3.2071	3.8697	4.6609	5.6044	6.7275
21	1.5156	1.6796	1.8603	2.0594	2.2787	2.5202	2.7859	3.3995	4.1405	5.0338	6.1088	7.4002
22	1.5459	1.7215	1.9161	2.1315	2.3699	2.6338	2.9252	3.6035	4.4304	5.4365	6.6586	8.1403
23	1.5769	1.7646	1.9736	2.2061	2.4647	2.7521	3.0715	3.8197	4.7405	5.8714	7.2578	8.9543
24	1.6084	1.8087	2.0328	2.2833	2.5633	2.8760	3.2251	4.0489	5.0723	6.3412	7.9111	9.8497
25	1.6406	1.8539	2.0937	2.3632	2.6658	3.0054	3.3863	4.2918	5.4274	6.8485	8.6231	10.8347
26	1.6734	1.9003	2.1566	2.4459	2.7724	3.1407	3.5556	4.5494	5.8073	7.3963	9.3991	11.9182
27	1.7069	1.9478	2.2213	2.5315	2.8833	3.2820	3.7334	4.8223	6.2138	7.9880	10.2451	13.1100
28	1.7410	1.9965	2.2879	2.6201	2.9987	3.4297	3.9201	5.1117	6.6488	8.6271	11.1671	14.4210
29	1.7758	2.0464	2.3565	2.7119	3.1186	3.5840	4.1161	5.4184	7.1142	9.3173	12.1722	15.8631
30	1.8113	2.0975	2.4272	2.8068	3.2434	3.7453	4.3219	5.7435	7.6122	10.0626	13.2677	17.4494

2—TABLE NUMBER—2.

Showing the Accumulation of Principal and Interest on one Dollar, the Interest being compounded semi-annually.

Yrs.	2%	2½%	3%	3½%	4%	4½%	5%	6%	7%	8%	9%	10%
1	1.0201	1.0251	1.0302	1.0353	1.0404	1.0455	1.0506	1.0609	1.0712	1.0816	1.0920	1.1025
2	1.0406	1.0519	1.0613	1.0718	1.0824	1.0930	1.1038	1.1255	1.1475	1.1698	1.1924	1.2155
3	1.0615	1.0783	1.0934	1.1097	1.1261	1.1438	1.1596	1.1940	1.2292	1.2646	1.3250	1.3400
4	1.0828	1.1054	1.1264	1.1488	1.1715	1.1948	1.2184	1.2667	1.3168	1.3678	1.4470	1.4773
5	1.1046	1.1332	1.1605	1.1894	1.2188	1.2481	1.2800	1.3439	1.4105	1.4794	1.5697	1.6287
6	1.1268	1.1617	1.1956	1.2324	1.2681	1.3004	1.3448	1.4257	1.5110	1.6002	1.7141	1.7957
7	1.1494	1.1909	1.2317	1.2759	1.3193	1.3643	1.4129	1.5125	1.6186	1.7307	1.8719	1.9747
8	1.1725	1.2209	1.2689	1.3210	1.3726	1.4264	1.4845	1.6047	1.7339	1.8720	2.0641	2.1827
9	1.1960	1.2516	1.3073	1.3676	1.4281	1.4913	1.5596	1.7024	1.8574	2.0247	2.2541	2.4064
10	1.2200	1.2831	1.3463	1.4154	1.4858	1.5592	1.6385	1.8061	1.9897	2.1899	2.4615	2.6520
11	1.2445	1.3154	1.3875	1.4654	1.5458	1.6301	1.7234	1.9161	2.1315	2.3687	2.6880	2.9250
12	1.2696	1.3484	1.4295	1.5171	1.6082	1.7044	1.8086	2.0326	2.2833	2.5619	2.9354	3.2248
13	1.2951	1.3824	1.4727	1.5704	1.6732	1.7820	1.9001	2.1564	2.4459	2.7710	3.2055	3.5558
14	1.3211	1.4171	1.5172	1.6259	1.7408	1.8631	1.9963	2.2878	2.6201	2.9971	3.5005	3.9198
15	1.3477	1.4527	1.5630	1.6833	1.8111	1.9479	2.0933	2.4271	2.8068	3.2417	3.8227	4.3216
16	1.3748	1.4893	1.6103	1.7428	1.8843	2.0365	2.2027	2.5749	3.0067	3.5062	4.1744	4.7645
17	1.4024	1.5268	1.6589	1.8043	1.9604	2.1272	2.3142	2.7317	3.2208	3.7923	4.5586	5.2529
18	1.4307	1.5652	1.7091	1.8680	2.0396	2.2240	2.4313	2.8981	3.4502	4.1018	4.9781	5.7883
19	1.4593	1.6045	1.7607	1.9339	2.1220	2.3252	2.5544	3.0746	3.6960	4.4365	5.4362	6.3816
20	1.4886	1.6449	1.8140	2.0022	2.2078	2.4310	2.6837	3.2618	3.9592	4.7985	5.9370	7.0362
21	1.5185	1.6863	1.8686	2.0729	2.2970	2.5415	2.8196	3.4605	4.2412	5.1900	6.4833	7.7574
22	1.5490	1.7287	1.9253	2.1451	2.3898	2.6572	2.9624	3.6712	4.5433	5.6138	7.0900	8.5525
23	1.5801	1.7722	1.9835	2.2208	2.4863	2.7781	3.1123	3.8948	4.8669	6.0716	7.7525	9.4292
24	1.6118	1.8168	2.0434	2.2992	2.5868	2.9045	3.2699	4.1320	5.2136	6.5670	8.4659	10.3957
25	1.6442	1.8625	2.1052	2.3804	2.6913	3.0367	3.4354	4.3836	5.5849	7.1030	9.2450	11.4612
26	1.6772	1.9093	2.1688	2.4645	2.8006	3.1749	3.6094	4.6506	5.9827	7.6826	10.0958	12.6339
27	1.7110	1.9577	2.2344	2.5515	2.9131	3.3193	3.7921	4.9338	6.4088	8.3094	11.0248	13.9311
28	1.7453	2.0066	2.3019	2.6416	3.0318	3.4703	3.9841	5.2343	6.8653	8.9875	12.0394	15.3591
29	1.7804	2.0571	2.3715	2.7348	3.1543	3.6283	4.1858	5.5531	7.3543	9.7208	13.1473	16.9334
30	1.8163	2.1088	2.4432	2.8314	3.2818	3.7933	4.3977	5.8913	7.8781	10.5143	14.3572	18.6691

Form devised by the Author.

3—TABLE NUMBER—3.

Giving the Present Worth or Value of $1 Annuity per annum at Compound Interest. **To use the table,** multiply the annuity by the present value of $1 annuity at the required time and rate as given in the table. **Example:**—A widow is entitled to $120 a year, payable annually, for 25 years at 6%; what is the present value of her interest? **Solution:**—$120 (the annuity) x $12.7833 (the present value of $1 annuity for 25 years, at 6%) = $1534.00. If the annuity be payable semi-annually and semi-annual interest is to be allowed, take the present value for double the number of years, at one-half the given rate. **Thus,** an annuity of $1 every six months, for 10 yrs. at 8% = $1 per annum for 20 yrs. at 4% = $13.5903.

Yrs.	2%	2½%	3%	3½%	4%	4½%	5%	6%	7%	8%	9%	10%
1	0.9804	0.9756	0.9708	0.9662	0.9615	0.9569	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091
2	1.9415	1.9275	1.9134	1.8997	1.8861	1.8726	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355
3	2.8839	2.8560	2.8286	2.8016	2.7751	2.7489	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869
4	3.8077	3.7619	3.7170	3.6731	3.6299	3.5875	3.5459	3.4651	3.3872	3.3121	3.2397	3.1699
5	4.7134	4.6459	4.5797	4.5150	4.4518	4.3899	4.3295	4.2123	4.1002	3.9927	3.8896	3.7908
6	5.6014	5.5081	5.4172	5.3285	5.2421	5.1578	5.0757	4.9173	4.7665	4.6229	4.5216	4.3553
7	6.4719	6.3494	6.2303	6.1145	6.0020	5.8926	5.7864	5.5824	5.3893	5.2064	5.0857	4.8684
8	7.3255	7.1701	7.0197	6.8739	6.7327	6.5958	6.4632	6.2097	5.9713	5.7466	5.5348	5.3349
9	8.1622	7.9708	7.7861	7.6077	7.4353	7.2687	7.1078	6.8017	6.5152	6.2469	6.0228	5.7590
10	8.9826	8.7521	8.5302	8.3166	8.1109	7.9121	7.7217	7.3601	7.0236	6.7101	6.4429	6.1446
11	9.7868	9.5142	9.2526	9.0015	8.7605	8.5288	8.3064	7.8869	7.4987	7.1390	6.8284	6.4951
12	10.5753	10.2578	9.9540	9.6633	9.3851	9.1185	8.8632	8.3838	7.9427	7.5361	7.1888	6.8137
13	11.3484	10.9831	10.6349	10.3027	9.9856	9.6830	9.3936	8.8527	8.3576	7.9038	7.5131	7.1034
14	12.1063	11.6902	11.2960	10.9205	10.5621	10.2233	9.8986	9.2950	8.7454	8.2442	7.8101	7.3667
15	12.8493	12.3814	11.9379	11.5174	11.1184	10.7395	10.3796	9.7122	9.1079	8.5595	8.0826	7.6061
16	13.5777	13.0550	12.5611	12.0941	11.6523	11.2339	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237
17	14.2916	13.7122	13.1661	12.6513	12.1656	11.7072	11.2741	10.4772	9.7632	9.1216	8.5436	8.0216
18	14.9921	14.3534	13.7535	13.1897	12.6592	12.1600	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014
19	15.6784	14.9163	14.3238	13.7098	13.1339	12.5932	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649
20	16.3514	15.5891	14.8774	14.2124	13.5903	13.0079	12.4622	11.4694	10.5940	9.8181	9.1285	8.5136
21	17.0112	16.1606	15.4150	14.6979	14.0291	13.4047	13.8211	11.7641	10.8355	10.0168	9.3053	8.6487
22	17.6581	16.7421	15.9369	15.1671	14.4511	13.7844	13.1630	12.0416	11.0612	10.2007	9.4543	8.7715
23	18.2922	17.3094	16.4436	15.6204	14.8568	14.1478	13.4885	12.3034	11.2722	10.3711	9.5911	8.8832
24	18.9138	17.8628	16.9355	16.0583	15.2469	14.5050	13.7986	12.5503	11.4693	10.5288	9.7167	8.9847
25	19.5235	18.4028	17.4131	16.4815	15.6221	14.8282	14.0939	12.7833	11.6536	10.6748	9.8330	9.0770
26	20.1150	18.9296	17.8768	16.8903	15.9827	15.1466	14.2752	13.0032	11.8258	10.8100	9.9375	9.1609
27	20.7069	19.4435	18.3270	17.2853	16.3296	15.4513	14.6430	13.2105	11.9867	10.9352	10.0344	9.2372
28	21.2813	19.9448	18.7641	17.6670	16.6630	15.7429	14.8981	13.4062	12.1371	11.0511	10.1233	9.3066
29	21.8444	20.4339	19.1884	18.0357	16.9837	16.0219	15.1411	13.5907	12.2777	11.1584	10.2048	9.3696
30	22.3964	20.9113	19.6004	18.3920	17.2920	16.2889	15.3724	13.7648	12.4090	11.2578	10.2874	9.4269

4—TABLE NUMBER—4.

Giving the Amount of $1 Annuity per annum at Compound Interest. **To use the table,** multiply the annuity by the amount of $1 for the required time at the required rate and intervals as given in the table. **Example:**—At the birth of a son a father invests for him $100 at 5%, interest computed annually, and the same amount with accrued interest on each birthday thereafter till the son is 21 years old; what sum will the son have when he comes of age? **Solution:**—$100 (the annuity) x $35.7193 (the amount of $1 annuity for 21 yrs. at 5%) = $3571.93.

Yrs.	2%	2½%	3%	3½%	4%	4½%	5%	6%	7%	8%	9%	10%
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	2.0200	2.0250	2.0300	2.0350	2.0400	2.0450	2.0500	2.0600	2.0700	2.0800	2.0900	2.1000
3	3.0604	3.0756	3.0909	3.1062	3.1216	3.1370	3.1525	3.1836	3.2149	3.2464	3.2781	3.3100
4	4.1216	4.1525	4.1836	4.2149	4.2465	4.2782	4.3101	4.3746	4.4399	4.5061	4.5731	4.6410
5	5.2040	5.2563	5.3091	5.3625	5.4163	5.4707	5.5256	5.6371	5.7507	5.8666	5.9847	6.1051
6	6.3081	6.3877	6.4684	6.5502	6.6330	6.7169	6.8019	6.9753	7.1533	7.3359	7.5233	7.7156
7	7.4342	7.5474	7.6625	7.7794	7.8983	8.0191	8.1420	8.3938	8.6540	8.9228	9.2004	9.4872
8	8.5829	8.7361	8.8923	9.0517	9.2142	9.3800	9.5491	9.8975	10.2598	10.6366	11.0284	11.4359
9	9.7546	9.9545	10.1591	10.3685	10.5828	10.8021	11.0266	11.4913	11.9780	12.4876	13.0810	13.5795
10	10.9497	11.2034	11.4639	11.7314	12.0061	12.2882	12.5779	13.1808	13.8164	14.4866	15.1929	15.9374
11	12.1687	12.4834	12.8078	13.1420	13.4864	13.8411	14.2068	14.9716	15.7836	16.6455	17.5603	18.5312
12	13.4121	13.7955	14.1920	14.6020	15.0258	15.4640	15.9171	16.8699	17.8885	18.9771	20.1407	21.3843
13	14.6803	15.1404	15.6178	16.1130	16.6268	17.1599	17.7130	18.8821	20.1406	21.4953	22.9534	24.5227
14	15.9739	16.5189	17.0863	17.6770	18.2919	18.9321	19.5986	21.0151	22.5505	24.2149	26.0992	27.9750
15	17.2934	17.9319	18.5989	19.2957	20.0236	20.7840	21.5786	23.2760	25.1290	27.1521	29.4470	31.7725
16	18.6392	19.3802	20.1569	20.9710	21.8245	22.7193	23.6575	25.6725	27.8881	30.3243	33.0834	35.9497
17	20.0120	20.8647	21.7616	22.7050	23.6975	24.7417	25.8404	28.2129	30.8402	33.7502	37.0537	40.5447
18	21.4123	22.3863	23.4144	24.4997	25.6454	26.8550	28.1324	30.9057	33.9990	37.4502	41.3813	45.5992
19	22.8405	23.9460	25.1169	26.3572	27.6712	29.0635	30.5390	33.7600	37.3790	41.4463	46.0984	51.1591
20	24.2973	25.5446	26.8704	28.2797	29.7781	31.3714	33.0660	36.7856	40.9955	45.7620	51.2401	57.2750
21	25.7833	27.1432	28.6765	30.2696	31.9692	33.7831	35.7193	39.9927	44.8652	50.4229	56.8445	64.0025
22	27.2989	28.8228	30.5368	32.3290	34.2480	36.3033	38.5052	43.3923	49.0057	55.4568	62.9538	71.4027
23	28.8449	30.5444	32.4529	34.4605	36.6179	38.9370	41.4305	46.9958	53.4361	60.8933	69.6119	79.5430
24	30.4218	32.3090	34.4265	36.6665	39.0826	41.6892	44.5020	50.8156	58.1767	66.7648	76.7898	88.4973
25	32.0303	34.1117	36.4593	38.9498	41.6459	44.5652	47.7271	54.8645	63.2490	73.1059	84.7009	98.3470
26	33.6709	35.9717	38.5530	41.3139	44.3117	47.5706	51.1135	59.1564	68.6765	79.9544	93.4040	109.1817
27	35.3443	37.8720	40.7096	43.7598	47.0842	50.7113	54.6691	63.7057	74.4838	87.3508	102.8031	121.0299
28	37.0512	39.8198	42.9309	46.2914	49.9676	53.9933	58.4026	68.5281	80.6977	95.3388	113.0482	134.2099
29	38.7922	41.8163	45.2188	48.9116	52.9663	57.4230	62.3227	73.6404	87.3465	103.9659	124.2136	148.6309
30	40.5680	43.8627	47.5754	51.6235	56.0849	61.0070	66.4389	79.0588	94.4608	113.2832	136.3815	164.4940

AN INSTANTANEOUS METHOD OF MEASURING LUMBER

In the table, Board and Plank Measurement, the length is given at the top; the width at the left, and also in the body of the table. If the dimensions of any board exceed the dimensions given in the table, take any two dimensions, and add. To find the feet in a board, take the length at the top, and descend the column to the required width (shown by the small back-hand number), where is found the number of feet and inches. In the other tables, fractions of a foot are dropped if less than ½; added if more.

BOARD AND PLANK MEASUREMENT

LENGTH IN FEET.

WIDTH IN INCHES	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3	1 00	1 03	1 06	1 09	2 00	2 03	2 06	2 09	3 00	3 03	3 06	3 09	4 00	4 03	4 06	4 09	5 00	5 03	5 06
FEET AND INCHES	1 04	1 08	2 00	2 04	2 08	3 00	3 04	3 08	4 00	4 04	4 08	5 00	5 04	5 08	6 00	6 04	6 08	7 00	7 04
4	1 08	2 01	2 06	2 11	3 04	3 09	4 02	4 07	5 00	5 05	5 10	6 03	6 08	7 01	7 06	7 11	8 04	8 09	9 02
FEET AND INCHES	2 00	2 06	3 00	3 06	4 00	4 06	5 00	5 06	6 00	6 06	7 00	7 06	8 00	8 06	9 00	9 06	10 00	10 06	11 00
5	2 04	2 11	3 06	4 01	4 08	5 03	5 10	6 05	7 00	7 07	8 02	8 09	9 04	9 11	10 06	11 01	11 08	12 03	12 10
FEET AND INCHES	2 08	3 04	4 00	4 08	5 04	6 00	6 08	7 04	8 00	8 08	9 04	10 00	10 08	11 04	12 00	12 08	13 04	14 00	14 08
6	3 00	3 09	4 06	5 03	6 00	6 09	7 06	8 03	9 00	9 09	10 06	11 03	12 00	12 09	13 06	14 03	15 00	15 09	16 06
FEET AND INCHES	3 04	4 02	5 00	5 10	6 08	7 06	8 04	9 02	10 00	10 10	11 08	12 06	13 04	14 02	15 00	15 10	16 08	17 06	18 04
7	3 08	4 07	5 06	6 05	7 04	8 03	9 02	10 01	11 00	11 11	12 10	13 09	14 08	15 07	16 06	17 05	18 04	19 03	20 02
FEET AND INCHES	4 00	5 00	6 00	7 00	8 00	9 00	10 00	11 00	12 00	13 00	14 00	15 00	16 00	17 00	18 00	19 00	20 00	21 00	22 00
8	4 04	5 05	6 06	7 07	8 08	9 09	10 10	11 11	13 00	14 01	15 02	16 03	17 04	18 05	19 06	20 07	21 08	22 09	23 10
FEET AND INCHES	4 08	5 10	7 00	8 02	9 04	10 06	11 08	12 10	14 00	15 02	16 04	17 06	18 08	19 10	21 00	22 02	23 04	24 06	25 08
9	5 00	6 03	7 06	8 09	10 00	11 03	12 06	13 09	15 00	16 03	17 06	18 09	20 00	21 03	22 06	23 09	25 00	26 03	27 06
FEET AND INCHES	5 04	6 08	8 00	9 04	10 08	12 00	13 04	14 08	16 00	17 04	18 08	20 00	21 04	22 08	24 00	25 04	26 08	28 00	29 04
10	5 08	7 01	8 06	9 11	11 04	12 09	14 02	15 07	17 00	18 05	19 10	21 03	22 08	24 01	25 06	26 11	28 04	29 09	31 02
FEET AND INCHES	6 00	7 06	9 00	10 06	12 00	13 06	15 00	16 06	18 00	19 06	21 00	22 06	24 00	25 06	27 00	28 06	30 00	31 06	33 00
11	6 04	7 11	9 06	11 01	12 08	14 03	15 10	17 05	19 00	20 07	22 02	23 09	25 04	26 11	28 06	30 01	31 08	33 03	34 10
FEET AND INCHES	6 08	8 04	10 00	11 08	13 04	15 00	16 08	18 04	20 00	21 08	23 04	25 00	26 08	28 04	30 00	31 08	33 04	35 00	36 08
12	7 00	8 09	10 06	12 03	14 00	15 09	17 06	19 03	21 00	22 09	24 06	26 03	28 00	29 09	31 06	33 03	35 00	36 09	38 06
FEET AND INCHES	7 04	9 02	11 00	12 10	14 08	16 06	18 04	20 02	22 00	23 10	25 08	27 06	29 04	31 02	33 00	34 10	36 08	38 06	40 04
13	7 08	9 07	11 06	13 05	15 04	17 03	19 02	21 01	23 00	24 11	26 10	28 09	30 08	32 07	34 06	36 05	38 04	40 03	42 02
FEET AND INCHES	8 00	10 00	12 00	14 00	16 00	18 00	20 00	22 00	24 00	26 00	28 00	30 00	32 00	34 00	36 00	38 00	40 00	42 00	44 00
14	8 04	10 05	12 06	14 07	16 08	18 09	20 10	22 11	25 00	27 01	29 02	31 03	33 04	35 05	37 06	39 07	41 08	43 09	45 10
FEET AND INCHES	8 08	10 10	13 00	15 02	17 04	19 06	21 08	23 10	26 00	28 02	30 04	32 06	34 08	36 10	39 00	41 02	43 04	45 06	47 08
15	9 00	11 03	13 06	15 09	18 00	20 03	22 06	25 09	27 00	29 03	31 06	33 09	36 00	38 03	40 06	42 09	45 00	47 03	49 06
FEET AND INCHES	9 04	11 08	14 00	16 04	18 08	21 00	23 04	25 08	28 00	30 04	32 08	35 00	37 04	39 08	42 00	44 04	46 08	49 00	51 04
16	9 08	12 01	14 06	17 11	19 04	22 01	24 06	27 11	29 08	32 01	34 06	37 11	39 08	42 01	44 06	47 11	49 08	52 01	54 06
FEET AND INCHES	10 00	12 06	15 00	17 06	20 00	22 06	25 00	27 06	30 00	32 06	35 00	37 06	40 00	42 06	45 00	47 06	50 00	52 06	55 00

LOGS REDUCED TO BOARD MEASURE

DIAM. IN INCHES	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
12 FEET LONG	23	31	40	50	62	75	90	105	122	140	160	180	202	225	250	275	302	330	360	391	422	456	490	526	562
NO. OF FEET																									
14 FEET LONG	27	36	46	58	72	87	105	123	142	163	186	210	236	262	291	321	352	385	420	456	492	532	572	613	656
NO. OF FEET																									
16 FEET LONG	31	42	53	67	82	100	120	140	163	187	213	240	270	300	333	367	403	440	480	522	563	608	654	701	750
NO. OF FEET																									
18 FEET LONG	35	47	60	76	93	113	135	158	184	211	240	271	303	337	375	413	453	496	540	586	633	683	735	789	844
NO. OF FEET																									
20 FEET LONG	38	49	64	81	100	121	144	169	196	225	256	289	324	359	400	441	484	530	576	625	676	729	784	842	900
NO. OF FEET																									
22 FEET LONG	38	52	68	88	108	128	153	179	209	239	272	307	344	383	425	468	514	563	612	664	718	774	833	895	958
NO. OF FEET																									
24 FEET LONG	41	55	72	91	113	136	162	190	220	253	288	325	364	406	450	496	544	596	648	703	761	820	882	946	1012
NO. OF FEET																									
26 FEET LONG	43	58	76	96	119	143	171	201	232	267	304	343	384	429	475	523	574	630	684	742	803	865	931	999	1069
NO. OF FEET																									
28 FEET LONG	46	61	80	101	125	151	180	211	244	280	320	361	404	452	500	550	605	661	720	782	845	912	980	1052	1125
NO. OF FEET																									
30 FEET LONG	48	64	84	106	131	158	189	222	257	295	336	379	425	473	525	579	635	693	756	820	887	957	1029	1103	1181
NO. OF FEET																									
32 FEET LONG	50	67	88	111	137	166	198	232	269	309	352	397	445	496	550	605	665	726	792	860	930	1004	1078	1156	1238
NO. OF FEET																									
34 FEET LONG	52	70	92	116	144	174	207	243	281	323	368	415	465	519	575	632	695	760	828	898	972	1049	1127	1209	1295
NO. OF FEET																									
36 FEET LONG	54	74	98	122	150	181	218	254	294	338	384	433	486	541	600	662	726	794	864	938	1014	1094	1176	1262	1350
NO. OF FEET																									
38 FEET LONG	56	77	100	127	156	189	225	264	306	351	400	451	506	562	625	689	756	827	900	977	1056	1139	1225	1315	1406
NO. OF FEET																									
40 FEET LONG	59	80	104	132	163	198	234	274	318	366	416	470	526	586	650	718	786	860	936	1016	1098	1184	1274	1368	1462
NO. OF FEET																									
42 FEET LONG	61	83	108	137	169	204	243	285	330	380	432	488	546	608	675	744	816	893	972	1054	1140	1230	1323	1420	1518
NO. OF FEET																									
44 FEET LONG	63	86	112	142	175	212	252	296	342	394	448	506	566	626	700	772	846	926	1008	1094	1182	1276	1372	1472	1574
NO. OF FEET																									
46 FEET LONG	65	89	116	147	182	219	261	306	355	409	464	524	586	649	725	799	876	959	1044	1133	1224	1321	1421	1525	1631
NO. OF FEET																									
48 FEET LONG	68	92	120	152	188	226	270	316	368	422	480	542	606	672	750	826	906	992	1080	1172	1266	1368	1470	1578	1688
NO. OF FEET																									
50 FEET LONG	70	95	124	157	193	234	279	327	380	436	496	560	627	695	775	854	937	1026	1116	1211	1309	1412	1519	1631	1744
NO. OF FEET																									

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LOGS REDUCED TO CUBIC FEET

	DIAM. 10	DIAM. 11	DIAM. 12	DIAM. 13	DIAM. 14	DIAM. 15	DIAM. 16	DIAM. 17	DIAM. 18	DIAM. 19	DIAM. 20	DIAM. 21	DIAM. 22	DIAM. 23	DIAM. 24	DIAM. 25	DIAM. 26	DIAM. 27	DIAM. 28	DIAM. 29	DIAM. 30	DIAM. 31	DIAM. 32	DIAM. 33	DIAM. 34	DIAM. 35	DIAM. 36
10 FEET LONG																											
NO. OF FEET	5	7	8	9	10	12	14	16	18	20	22	24	26	29	31	34	37	40	43	46	49	52	56	59	63	67	71
11 FEET LONG																											
NO. OF FEET	6	7	8	10	12	13	15	17	19	22	24	26	29	32	35	37	41	43	47	50	53	57	61	65	69	73	77
12 FEET LONG																											
NO. OF FEET	6	8	9	11	13	15	17	19	21	24	26	29	32	34	38	41	44	47	51	54	58	62	67	71	76	80	84
13 FEET LONG																											
NO. OF FEET	7	9	11	13	15	17	19	22	25	28	31	34	37	41	44	48	52	55	60	64	68	73	78	83	88	94	99
14 FEET LONG																											
NO. OF FEET	8	10	12	14	16	19	21	24	27	30	33	36	40	43	47	51	55	59	64	69	73	78	84	89	95	100	106
15 FEET LONG																											
NO. OF FEET	8	11	13	16	18	21	24	27	30	34	37	41	45	49	53	58	62	67	72	78	83	89	95	101	107	113	
16 FEET LONG																											
NO. OF FEET	9	11	14	16	19	22	25	28	32	35	39	43	47	51	56	60	65	70	76	81	87	93	99	106	112	119	
17 FEET LONG																											
NO. OF FEET	10	12	15	18	21	24	27	31	35	39	43	47	52	57	61	67	72	78	84	90	96	103	110	117	124		
18 FEET LONG																											
NO. OF FEET	10	13	16	19	22	25	29	33	37	41	46	50	55	61	66	71	77	83	90	96	103	111	118	126			
19 FEET LONG																											
NO. OF FEET	11	14	17	20	23	27	31	35	39	43	48	53	58	64	69	75	81	87	94	101	109	116	124				
20 FEET LONG																											
NO. OF FEET	12	15	17	20	24	28	32	36	41	45	50	56	61	67	73	79	86	93	100	108	116	124					
21 FEET LONG																											
NO. OF FEET	13	16	18	21	25	29	33	38	43	48	53	59	64	71	77	84	91	98	106	114	123						
22 FEET LONG																											
NO. OF FEET	13	17	20	23	27	31	35	40	45	51	56	62	68	74	81	88	95	103	111	120	129	138					
23 FEET LONG																											
NO. OF FEET	14	18	21	24	28	33	38	42	48	53	59	65	71	78	85	92	99	107	115	124	133	142					
24 FEET LONG																											
NO. OF FEET	15	19	22	26	30	35	40	45	51	57	63	69	76	83	90	98	106	114	123	132	142						
25 FEET LONG																											
NO. OF FEET	16	20	24	28	32	37	42	47	53	59	65	72	79	86	94	102	110	119	128	138	148						
26 FEET LONG																											
NO. OF FEET	17	20	24	29	33	38	43	48	55	61	68	75	82	89	98	106	114	123	132	143	152	163	173	182	195	207	220

SCANTLING AND TIMBER MEASUREMENT

THICKNESS AND WIDTH IN INCHES.

	2x2	2x3	2x4	2x5	2x6	2x7	2x8	2x9	3x3	3x4	3x5	3x6	3x7	3x8	3x9	4x4	4x5	4x6	4x7	4x8	4x9	4x10	5x5	5x6	5x7	5x8	5x9	6x6	6x7	6x8	6x9
6 FEET LONG																															
NO. OF FEET	2	3	4	5	6	7	8	9	5	6	8	9	11	12	14	8	10	12	14	16	18	20	13	15	18	20	23	18	21	24	27
7 FEET LONG																															
NO. OF FEET	2	4	5	6	7	8	9	11	6	7	10	11	12	14	16	9	12	14	16	18	21	23	15	18	20	23	26	21	25	28	32
8 FEET LONG																															
NO. OF FEET	3	4	5	7	8	9	11	12	6	8	10	12	14	16	18	11	13	16	19	21	24	27	17	20	23	27	30	24	29	32	36
9 FEET LONG																															
NO. OF FEET	3	5	6	8	9	11	12	14	7	9	11	14	16	18	20	12	15	18	21	24	27	30	19	23	26	30	34	27	32	36	41
10 FEET LONG																															
NO. OF FEET	3	5	7	8	10	12	14	16	8	10	13	15	18	20	23	14	18	21	25	28	32	35	23	28	32	37	42	33	38	44	49
11 FEET LONG																															
NO. OF FEET	4	6	7	9	11	13	15	17	9	11	14	17	19	22	25	15	19	22	26	29	33	37	23	27	32	37	41	33	38	44	49
12 FEET LONG																															
NO. OF FEET	4	6	8	10	12	14	16	18	9	12	15	18	21	24	27	16	20	24	28	32	36	40	25	30	35	40	45	36	42	48	54
13 FEET LONG																															
NO. OF FEET	5	7	9	11	13	15	17	19	10	13	16	19	22	25	29	17	22	26	30	35	39	43	27	32	38	43	49	39	45	52	58
14 FEET LONG																															
NO. OF FEET	5	7	9	12	14	16	19	21	11	14	18	21	25	28	32	19	24	29	33	38	43	48	30	36	42	48	54	43	50	57	63
15 FEET LONG																															
NO. OF FEET	6	8	11	13	16	18	21	24	12	16	20	24	28	32	36	22	27	32	37	43	48	53	33	40	47	53	60	48	56	64	72
16 FEET LONG																															
NO. OF FEET	6	9	11	14	17	20	23	25	13	17	21	25	30	34	38	23	29	34	40	45	51	57	35	43	50	57	64	51	59	68	76
17 FEET LONG																															
NO. OF FEET	7	9	12	15	18	21	24	27	14	18	22	27	32	36	40	24	31	36	42	48	54	60	38	45	53	60	67	54	63	72	81
18 FEET LONG																															
NO. OF FEET	8	10	13	16	19	22	25	28	14	19	24	29	33	38	43	25	32	38	44	51	57	63	40	47	55	63	71	57	67	76	86
19 FEET LONG																															
NO. OF FEET	8	11	14	17	20	23	27	30	15	20	25	30	35	40	45	27	33	40	47	53	60	67	42	50	58	67	75	60	70	80	90
20 FEET LONG																															
NO. OF FEET	9	12	15	18	21	24	28	31	16	21	26	31	37	42	47	28	35	42	49	56	63	70	44	52	61	70	79	63	73	84	94
21 FEET LONG																															
NO. OF FEET	9	13	16	19	23	27	31	34	17	23	29	34	40	46	52	31	38	46	54	61	69	77	48	57	67	77	86	69	80	92	103

THICKNESS AND WIDTH IN INCHES.

	6x11	6x12	7x7	7x8	7x9	7x10	7x11	7x12	8x8	8x9	8x10	8x11	8x12	9x9	9x10	9x11	9x12	10x10	10x11	10x12	11x11	11x12	12x12	12x13	12x14	12x15	12x16	13x13	13x14	13x15	13x16
6 FEET LONG																															
NO. OF FEET	33	36	24	28	31	35	38	42	32	36	40	44	48	40	45	49	54	50	55	60	60	66	72	78	84	90	96	84	91	97	104
7 FEET LONG																															
NO. OF FEET	38	42	28	33	37	41	45	49	37	42	47	51	56	47	52	58	63	58	64	70	71	77	84	91	98	105	112	98	106	114	121
8 FEET LONG																															
NO. OF FEET	44	48	33	37	42	47	51	56	43	48	53	59	64	54	60	66	72	67	73	80	81	88	96	104	112	120	128	113	121	130	139
9 FEET LONG																															
NO. OF FEET	49	54	37	42	47	52	58	63	48	54	60	66	72	61	67	74	81	75	82	90	91	99	108	117	126	135	144	127	136	146	156
10 FEET LONG																															
NO. OF FEET	55	60	41	47	52	58	64	70	53	60	67	73	80	67	75	82	90	83	91	100	101	110	120	130	140	150	160	141	152	162	173
11 FEET LONG																															
NO. OF FEET	60	66	45	51	58	64	71	77	59	66	73	81	88	74	83	91	99	92	101	110	111	121	132	143	154	165	176	155	167	179	191
12 FEET LONG																															
NO. OF FEET	66	72	49	56	63	70	77	84	64	72	80	88	96	81	90	99	108	100	110	120	121	132	144	156	168	180	192	169	182	195	208
13 FEET LONG																															
NO. OF FEET	71	78	53	61	68	76	83	91	69	78	87	95	104	88	97	107	117	108	119	130	131	143	156	169	182	195	208	183	197	211	225
14 FEET LONG																															
NO. OF FEET	77	84	57	65	73	82	90	98	75	84	93	103	112	95	105	115	126	117	128	140	141	154	168	182	196	210	224	197	212	227	243
15 FEET LONG																															
NO. OF FEET	82	90	61	70	79	87	96	105	80	90	100	110	120	101	112	123	135	125	137	150	151	165	180	195	210	225	240	211	227	244	260
16 FEET LONG																															
NO. OF FEET	88	96	65	75	84	93	103	112	85	96	107	117	128	108	120	132	144	133	147	160	161	176	192	208	224	240	256	225	242	260	277
17 FEET LONG																															
NO. OF FEET	93	102	69	79	89	99	109	119	91	102	113	125	136	115	127	140	153	142	156	170	171	187	204	221	238	255	272	239	258	276	295
18 FEET LONG																															
NO. OF FEET	104	114	78	89	100	111	122	133	101	114	127	141	152	128	142	157	171	158	174	190	192	209	228	247	266	285	304	268	288	309	329
19 FEET LONG																															
NO. OF FEET	110	120	82	93	105	117	128	140	107	120	133	147	160	135	150	165	180	167	183	200	202	220	240	260	280	300	320	281	303	325	346
20 FEET LONG																															
NO. OF FEET	116	126	86	98	110	122	135	147	112	126	140	154	168	142	157	173	189	175	192	210	212	231	252	273	294	315	336	295	318	341	364
21 FEET LONG																															
NO. OF FEET	121	132	90	103	115	128	141	152	117	132	147	161	176	148	165	181	198	183	202	220	222	242	264	286	308	330	352	310	334	357	381
22 FEET LONG																															
NO. OF FEET	126	138	94	107	121	134	148	161	123	138	153	169	184	155	172	190	207	192	211	230	232	253	276	299	322	345	368	324	349	374	399

AMERICAN WARS AND BATTLES.

WARS.

War of the Revolution	1775 to 1782
Indian War in Ohio Territory	1790
War with the Barbary States	1803 to 1804
Tecumseh Indian War	1811
War with Great Britain	1812 to 1815
Algerine War	1815
First Seminole War	1817
Black Hawk War	1832
Second Seminole War	1845
Mexican War	1846 to 1848
Mormon War	1856
Civil War	1861 to 1865
Dutch War	1673
King Philip's War	1676
King William's War	1689
Deerfield, Mass. burned by Indians	1704
Haverhill, Mass. burned by Indians	1708
Tuscaroras expelled from North Carolina	1713
Queen Anne's War	1744
French and Indian War	1754 to 1759
Pontiac's Conspiracy	1763
Massacre of Wyoming	1778
Treaty with the Six Nations	1784
Treaty with the Delawares	1804
War with the Creeks	1813 to 1814
War with the Seminoles	1835 to 1842
Cherokee Removal	1836 to 1837
Capture of Osceola	1837
Aroostook Disturbance	1838 to 1839
Rogue River Indian War	1855
Oregon Indian War	1856
Minnesota Indian War	1862
Chivington's Massacre, near Ft. Lyon	1864
Modoc Disturbance	1873
Custer Defeat by Indians	1876
Indian Messiah Craze Disturbance	1890

BATTLES.

REVOLUTION.

WHERE FOUGHT.	WHEN FOUGHT.	COMMANDERS. AMER.	COMMANDERS. BRIT.	SUCCESS. ARMY.
Lexington	Apr. 19, '75	Parker	Pitcairn	Amer.
Ticonderoga	May 10, '75	Allen	Delaplace	Amer.
Bunker Hill	June 17, '75	Prescott	Howe Clinton	Brit.
Quebec	Dec. 31, '75	Montgomery	Clinton	Brit.
Norfolk, Va.	Dec. 9, '75	Woodford	Dunmore	Brit.
Boston	Mch. 17, '76	Washington	Howe	Brit.
Ft. Moultrie	Je. 28, '76	Moultrie Armstrong	Clinton Howe	Amer.
Long Island	Aug. 27, '76	Putnam	Howe Clinton	Brit.
Harlem Plains	Sep. 16, '76	Washington	.....	Amer.
White Plains	Oct. 28, '76	Washington	Howe	Brit.
Ft. Washington	Nov. 16, '76	Magaw	Howe	Brit.
Trenton, N.J.	Dec. 26, '76	Washington	Rahl	Amer.
Princeton	Jan. 3, '77	Washington	Mawhood	Amer.
Hubbardton	July 7, '77	Warner	Frazer	Brit.
Ft. Schuyler	Aug. 6, '77	Herkimer	Leger	Amer.
Bennington	Aug. 13, '77	Stark	Baum	Amer.
Brandywine, Pa	Sep. 11, '77	Washington	Howe	Brit.
Bemis Heights, N.Y.	" 19, "	Gates	Burgoyne	Amer.
Germantown	Oct. 4, "	Washington	Howe	Brit.
Ft. Montgomery	" 6, "	Clinton	Clinton	Brit.
Stillwater, N.Y.	" 7, "	Gates	Burgoyne	Amer.
Ft. Mercer, N.J.	" 22, "	Greene	Donop	Amer.
Red Bank, N.J.	" 22, "	Greene	Howe	Amer.
Ft. Mifflin, Pa.	Nov. 15, "	Thayer	Howe	Brit.
Monmouth	Je. 28, '78	Washington	Clinton	Amer.
Schoharie, N.Y.	July 2, "	Brown	Indians	Amer.
Wyoming, Pa.	" 3, "	Butler	Butler	Brit.
Quaker Hill, R.I.	Aug. 29, "	Sullivan	Pigot	Amer.
Savannah, Ga.	Dec. 29, "	Howe	Campbell	Brit.
Sunbury, Ga.	Jan. 9, '79	Lane	Prevost	Brit.
Cherry Valley	Nov. 11, '78	.....	Butler Brant	Brit.
Brier Creek, Ga.	Mch. 3, '79	Ashe	Prevost	Brit.
Kettle Creek, Ga.	Feb. 14, "	Pickens	Boyd	Amer.
Stony Ferry, S.C.	Je. 20, "	Lincoln	Maitland	Brit.
Stony Point, N.Y.	July 16, "	Washington	Clinton	Amer.
Penobscot, Me.	Aug. 13, "	Lovell	McLean	Brit.
Paulus Hook, N.J.	" 19, "	Lee	.....	Amer.
Chemung, N.Y.	" 29, "	Sullivan	Brant	Amer.
Savannah, Ga.	Oct. 9, "	Lincoln	Prevost	Brit.
Charleston, S.C.	May 12, '80	Lincoln	Clinton	Brit.
Waxhaw, S.C.	" 29, "	Buford	Tarleton	Brit.
Springfield, N.J.	Je. 23, "	Greene	Knyphausen	Amer.
Rocky Mount	July 30, "	Sumter	Turnbull	Brit.
Hanging Rock, S.C.	Aug. 6, "	Sumter	Brown	Amer.
Sanders's Creek, S.C.	" 15, "	Gates	Cornwallis	Brit.
Fishing Creek	" 18, "	Sumter	Tarleton	Brit.
King's Mount'n, S.C.	Oct. 7, "	Campbell	Ferguson	Amer.
Fishdam Ford, S.C.	Nov. 12, "	Sumter	Weinyss	Amer.
Blockstock, S.C.	" 20, "	Sumter	Tarleton	Amer.
Lowaens, S.C.	Je. 17, '81	Morgan	Tarleton	Amer.
Battle of the Haw	Feb. 25, "	Lee	Peyle	Amer.
Guilford C.H., N.C.	Mch. 15, "	Greene	Cornwallis	Brit.
Hobkirk's Hill, Va.	Apr. 25, "	Greene	Rawdon	Brit.
Ninety-Six, N.C.	May 22, "	Greene	Cruger	Brit.
Augusta, Ga.	Je. 14, "	Eggleston	Brown	Brit.
Ft. Griswold, Conn.	Sep. 6, "	Ledyard	Arnold	Brit.
Eutaw Springs, S.C.	" 8, "	Greene	Stewart	Neither
Yorktown, Va	Oct. 18, "	Washington	Cornwallis	Amer.

WAR OF 1812.

ON THE LAND.

WHERE FOUGHT.	WHEN FOUGHT.	COMMANDERS. AMER.	COMMANDERS. BRIT.	SUCCESS. ARMY.
Brownstown, Can.	Aug. 5, '12	Van Horn	Tecumseh	Brit.
Maguaga	" 9, "	Miller	Tecumseh	Amer.
Detroit	" 15, "	Hull	Brock	Brit.
Queenstown	Oct. 13, "	Van Rensselaer	Brock	Brit.
Ogdensburg	" 21, "	Forsyth	.....	Brit.
Frenchtown	Jan. 22, '13	Winchester	Proctor	Brit.
York (Toronto)	Apr. 27, "	Pike	Sheaffe	Amer.
Ft. Meigs	May 5, "	Clay	Proctor	Amer.
Ft. George, Can.	" 27, "	Dearborn	Vincent	Amer.
Ft. Mimms	" 27, "	Beaseley	Tecumseh	Brit.
Sackett's Harbor	" 29, "	Brown	Prevost	Amer.
Stony Creek	Je. 8, "	Winder	Vincent	Brit.
Ft. Stephenson	Aug. 2, "	Crogham	Proctor	Amer.
Thames, Can.	Oct. 5, "	Harrison	Proctor	Amer.
Chrysler's Field	Nov. 11, '13	Boyd	Morrison	Amer.
La Caell Mill	Mch. 30, '14	Wilkinson	Hancock	Brit.
Washington	Apr. 25, "	.....	Ross	Brit.
Chippewa	July 5, "	Brown	Riall	Amer.
Lundy's Lane	" 25, "	Brown	Drummond	Amer.
Ft. Erie	Aug. 15, "	Gaines	Drummond	Amer.
Bladensburg	" 24, "	Winder	Ross	Brit.
Plattsburg	Sep. 11, "	Macomb	Prevost	Amer.
North Point	" 12, "	Stricker	Brooke	Brit.
Ft. McHenry	" 13, "	Armistead	Cochrane	Amer.
Ft. Bowyer	" 15, "	Lawrence	Nicholls	Amer.
Ft. Erie	" 17, "	Brown	Drummond	Brit.
Ft. Niagara	Dec. 19, "	Leonard	British Looting	Brit.
3 miles from N.O.	" 23, "	Jackson	Keane	Neither
New Orleans	Jan. 8, '15	Jackson	Packenham	Amer.

ON THE WATER.

WHERE FOUGHT.	WHEN FOUGHT.	COMMANDERS-VESSELS AMER.	COMMANDERS-VESSELS BRIT.	SUCCESS. ARMY.
Off Newfoundland	Aug. 13, '12	Porter	Laugharne	Amer.
		Frig. Essex	Sloop Alert	
Off Massachusetts	Aug. 19, "	Hull	Dacres	Amer.
		Frig. Constitution	Frig. Guerriere	
Off North Carolina	Oct. 18, "	Jones	Whinyates	Amer.
		Sloop Wasp	Brig. Frolic	
Near Canary Islands	Oct. 25, "	Decatur United States	Carden Frig. Macedonian	Amer.
Off San Salvador	Dec. 29, "	Bainbridge Frig. Constitution	Lambert Frig. Java	Amer.
Off Demerra	Feb. 24, '13	Lawrence Sloop Hornet	Peake Brig Epervier	Amer.
Massachusetts Bay	June 1, "	Lawrence Chesapeake Frig.	Broke Frig. Shannon	Brit.
British Channel	Aug. 14, "	Allen Brig. Argus	Maples Brig. Pelican	Brit.
Off Maine	Sep. 5, "	Burrows Sloop Enterprise	Blythe Brig Boxer	Amer.
Lake Erie	Sep. 10, "	Perry Brig. Niagara 2 Vessels 54 Guns	Barclay Brig. Detroit 6 Guns	Amer.
Lake Ontario	Oct. 5, "	Chauncey	Prevost Yeo	Brit.
Harbor of Valparaiso	Mch. 28, '14	Porter	Hillyar	Brit.
		Frig. Essex	Brig Phoebe	
Off Florida	Apr. 23, "	Warrington	Wales	Amer.
		Sloop Wasp 18 Guns	Brig Reindeer 18 Guns	
British Channel	Je. 28, "	Blakely Sloop Wasp	Manners Shannon Brig	Amer.
Near Africa	Sep. 1, "	Blakely Sloop Wasp	Arbuthnot Sloop Avon	Amer.
Lake Champlain	Sep. 11, "	McDonough 14 Vessels 86 Guns	Downie 11 Vessels 95 Guns	Amer.
Mobile Bay	Sep. 15, "	Lawrence	Nichols 4 Ships 36 Guns	Amer.
		Ft. Bowyer		
Lake Borgue	Dec. 9, "	Jones	Lockyer	Brit.
		66 Men	40 Barges	
Off New Jersey	Jan. 15, '15	Decatur	Hayes	Brit.
		Frig. United States	Sloop Endymion	
Off Madeira Island	Feb. 23, "	Stewart	Falcon Frigate Cyane Sloop Levant	Amer.
		Frig. Constitution		
Off Brazil	Mch. 23, "	Biddle	Dickerson	Amer.
		Sloop Hornet	Brig Pelican	

The War of 1812 was really a continuance of the War of the Revolution, caused by the impressment of American seamen, and harassing of American commerce. It is noted for the large number of naval engagements.

FROM COPPER PLATE ENGRAVING

BATTLES CONTINUED.

MEXICAN WAR.

WHERE FOUGHT	WHEN FOUGHT	COMMANDERS. AMER.	MEX.	SUCCESS.
Palo Alto . .	May 8-46	Taylor	Arista	Amer.
Resaca de la Palma	" 9, "	Taylor	Arista	Amer.
Monterey . .	Sept. 24, "	Taylor	Ampudia	Amer.
Bracite . . .	Dec. 25, "	Doniphan	Ponce de Leon	Amer.
BuenaVista .	Feb. 23-47	Taylor	Santa Anna	Amer.
Sacramento .	" 28, "	Doniphan	Trias	Amer.
Vera Cruz . .	Mch. 27, "	Scott	Morales	Amer.
Cerro Gordo .	Apr. 18, "	Scott	Santa Anna	Amer.
Contreras . .	Aug. 20, "	Scott	Valencia	Amer.
Churubusco .	" 20, "	Scott	Santa Anna	Amer.
Molino del Rey.	Sep. 8, "	Worth	Alvarez	Amer.
Chapultepec .	" 13, "	Scott	Bravo	Amer.
Mexico	" 14, "	Scott	Santa Anna	Amer.
Huamantha .	Oct. 5, "	Lane	Santa Anna	Amer.

CIVIL WAR.

WHERE FOUGHT	WHEN FOUGHT	COMMANDERS. UNION	CONFED.	SUCCESS. ARMY.
Ft. Sumter. .	Apr. 12, 61	Anderson	Beauregard	. . . .
Baltimore. . .	" 19, "	. . . . .	. . . . .	. . . .
Big Bethel, Va.	Je. 20, "	Price	McBrulder (GEN. STONEWALL MASS. VOLS.	Union
Carthage, Mo.	July 5, "	Sigel	Jackson (PRICE)	Union
Rich Mount'n, Wva.	" 12, "	McClellan	Pegram	Union
Bull Run, Va. .	" 21, "	McDowell	Beauregard (JOHNSTON) (PRICE) (McCULLOCH	Confed.
Wilson's Creek, Mo.	Aug. 10, "	Lyon	Price	Union
Cheat Mount'n, Wva.	Sep. 12, "	Reynolds	Lee	. . . .
Lexington, Mo.	" 20, "	Mulligan	Price	Confed.
Ball's Bluff, Va.	" 21, "	Baker	Evans	Confed.
Belmont, Mo.	Nov. 7, "	Grant	. . . . .	Union
Pt. Royal, S.C..	" 7, "	Sherman (GEN. THOMAS)	Drayton	Union
Piketon, Ky. .	" 8, "	Nelson	. . . . .	Union
Milford, Mo. .	Dec. 18, "	Lyon (CAPT. STEELE)	. . . . .	Union
Mill Spring, Ky.	Jan. 19, 62	Thomas	Zollicoffer	Union
Roanoke Is., N.C.	Feb. 8, "	(GEN. BURNSIDE)	Wise	Union
Ft. Henry, Tenn	" 8, "	Surrendered to Foote by Tolgman		
Ft. Donelson, Tenn	" 16, "	(GEN. GRANT)	Buckner (GEN. JOHN B. FLOYD)	Union
Pea Ridge, Ark.	Mch. 8, "	Curtis	Price	Union
Newbern, N.C.	" 14, "	Burnside	Branch	Union
Winchester, Va. (PETERSBURG, TENN. (LANDING)	" 23, "	Shields	Jackson (JOHNSTON) (BEAUREGARD) (BUELL) (FOOTE) (McARTHEY) (HOOKER)	Union
Island No. 10 . .	" 10, "	Foote	Longstreet (JOHNSTON)	Union
Williamsburg, Va.	May 5, "	Hooker	Longstreet (JOHNSTON)	Union
Winchester, Va.	" 25, "	Banks	Jackson	Union
Hanover C.H., Va.	" 29, "	Morrell	Branch	Union
Corinth, Miss.	" 30, "	Halleck	Beauregard	Union
Fair Oaks, Va.	" 31, "	McClellan	Johnston	Confed.
Fair Oaks, Va.	Je. 1, "	McClellan	Johnston	Union
Cross Keys, Va.	" 8, "	Fremont	Jackson	Confed.
Pt. Republic, Va.	" 9, "	Shields	Jackson	Confed.
Chickahominy, Va.	" 26, "	McClellan	Lee	Confed.
Gaines Mills, Va.	" 27, "	Porter	Lee	Confed.
Malvern Hill, Va.	July 1, "	McClellan	Lee	Confed.
Baton Rouge, La.	Aug. 5, "	Williams	Breckenridge	Union
Cedar Mount'n, Va.	" 9, "	Banks	Jackson	Union
Gallatin, Tenn.	" 22, "	Johnson	Morgan	Confed.
Kettle Run, Va.	" 27, "	Hooker	Ewell (JACKSON) (LONGSTREET)	Union
Groveton, Va.	" 29, "	(BROOKES) (GEN. KEARNEY)	(GEN. HEINTZELMAN)	Union
Bull Run, Va.	" 30, "	Pope	Lee	Confed.
Richmond, Ky.	" 30, "	(MASON)	Smith	Confed.
Chantilly, Va.	Sep. 1, "	Pope	Lee	Union
South Mount'n, Md.	" 14, "	(RENO) (HOOKER)	Lee	Union
Harper's Ferry, Va.	" 15, "	Miles	Hill	Confed.
Antietam, Md.	" 17, "	McClellan	Lee	Union
Iuka, Miss.	" 19, "	Rosecrans	Price (CHEATHAM) (HURLBUT)	Union
Corinth, Miss.	Oct. 3, "	Rosecrans	Price (VAN-DORN) (LOVELL)	Union
Perryville, Ky.	" 8, "	Buell	Bragg (JOHNSTON) (FROST, ETC.	Union
Prairie Grove, Ark.	Dec. 7, "	(BLUNT) (HERON)	Brag	Union
Fredericksburg, Va.	" 13, "	Burnside	Lee	Confed.
Vicksburg, Miss.	" 25, "	Sherman	Johnston	Confed.

WHERE FOUGHT	WHEN FOUGHT	COMMANDERS UNION	CONFED.	SUCCESS. ARMY.
Stonefriver, Tenn.	Jan. 2, 63	Rosecrans (PORTER) (McCLERNAND)	Bragg	Union
Ft. Hindman, Ark.	" 11, "	Churchill (WHEELER) (FORREST)		Union
Ft. Donelson, Tenn.	Feb. 3, "	Harding		Union
Suffolk, Va.	May 1, "	Nixon	. . . .	Union
La Grange, Ark.	" 1, "	De Huff	. . . . .	. . . .
Fredericksburg, Va.	" 2, "	Sedgwick	Longstreet	Confed.
Chancellorsville, Va.	" 3, "	Hooker	Lee	Union
Jackson, Miss.	" 12, "	Grant	Johnston	Union
Champion Hills, Miss.	" 14, "	Grant	Pemberton	Union
Big Black River, "	" 16, "	Grant	Pemberton	Union
Vicksburg, Miss.	" 18-July 4	(GRANT, PORTER, McPHERSON)	Pemberton	Confed.
Pt. Hudson . .	" 27, "	Banks	Gardner	Union
Milliken's Bend, "	Je. 6, "	Thomas	McCullough (BUFORD) (STUART) (LEIGH) (LEE)	Union
Beverly Ford, Va.	" 9, "	(BUFORD) (GREGG)		. . . .
Winchester, Va.	" 14, "	Milroy	Ewell	Confed.
Shelbyville, Tenn.	" 20, "	Rosecrans	Bragg	Union
Gettysburg, Pa.	July 1-3, "	Meade	Lee	Union
Vicksburg, Miss.	" 4, "	Grant	Pemberton	Union
Helena, Ark. .	" 4, "	Prentiss	(PRICE) (MARMADUKE)	Union
Bolton, Miss. .	" 5, "	Grant	Johnston	Union
Port Hudson. .	" 8, "	Banks	Gardner	Union
Ft. Wagner, S.C.	" 18, "	Gilmore	Beauregard	Confed.
Cumberland Gap	Sep. 9, "	Burnside	Frazier	Union
Chickamauga . .	" 19-20, "	Rosecrans	Bragg	Union
Bristow, Va. .	" 14, "	Warren	Hill	Union
Knoxville, Tenn.	Dec. 4, "	Burnside	Longstreet	Union
Chattanooga . .	" 23, "	Grant	Bragg	Union
Missionary Ridge	" 25, "	Hooker	Bragg	Union
Ringold, Ga. .	" 27, "	Hooker	Hardee	Union
Locust Grove, Va.	" 26, "	Meade	Lee	. . . .
Paducah, Ky.	Mch. 3-64	Hicks	Forrest	Union
Mansfield, La.	Apr. 18, "	Banks	Smith	Union
Plymouth, N.C.	" 19, "	Wessells	Hoke	Confed.
Wilderness, Va.	May 5-7, "	Grant	Lee	. . . .
Spotsylvania, Va.	" 13, "	Grant	Lee	. . . .
Spotsylvania, Va.	" 12, "	Grant	Lee	. . . .
Ft. Darling, Va.	" 16, "	Butler	Beauregard	Union
Resaca, Ga. .	" 13, "	Sherman	Johnston	Union
Dallas, Ga. .	" 28, "	Sherman	Longstreet	Union
Cold Harbor, Va.	Je. 1, "	Grant	Lee	. . . .
Petersburg, Va.	" 16, "	Grant	Lee	Confed.
Weldon R.R., Va.	" 22, "	Meade	Lee	Confed.
Kenesaw Mt., Ga.	" 27, "	Sherman	Johnston	Union
Monocracy, Md.	July 9, "	Wallace	Early	Confed.
Peach Tree Creek, Ga.	" 20, "	Sherman	Hood	Union
Atlanta, Ga.	" 22, "	Sherman	Hood	Union
Petersburgh, Va.	" 30, "	Grant	Lee	Confed.
Mobile Bay, Ala.	Aug. 5-20, "	(FARRAGUT) (GRANGER)	(BUCHANAN)	Union
Deep Bottom, Va.	" 16, "	Grant	Lee	Confed.
6 Mile Station, Va.	" 19, "	Warren	Pickett	Union
Weldon R. R., Va.	" 25, "	Grant	Lee	Confed.
Atlanta, Ga.	" 31, "	Sherman	Hood	Union
Bunker Hill, Va.	Sep. 19, "	Sheridan	Early	. . . .
Fisher's Hill, Va.	" 21, "	Sheridan	Early	Union
Ironton, Mo.	" 26, "	Ewing	Price	Union
Petersburg, Va.	(SEP. 29) OCT. 1.	Grant	Lee	Confed.
Cedar Creek, Va.	Oct. 19, "	Sheridan	Early	Union
Nim's Creek, Mo.	" 20, "	Pleasanton	Price	Union
Hatcher's Run, Va.	" 27, "	Grant	Lee	Confed.
Franklin, Tenn.	Nov. 30, "	Schofield	Hood	Union
Nashville, Tenn.	Dec. 1, "	Thomas	Hood	Union
Ft. Fisher . .	Jan. 15, 65	Terry	. . . . .	Union
Wilmington, N.C.	" 19, "	(PORTER) (SCHENCK)	Bragg	Union
Waynesboro, Va.	Feb. 27, "	Sheridan	Early	Union
Kingston, N.C.	" 21, "	Schofield	Bragg	Union
Averasboro', N.C.	" 27, "	Sherman	Johnson	. . . .
Bentonville, N.C.	Mch. 19, "	Sherman	Johnson	Union
Petersburg, Va.	" 25, "	(MEADE) (GRANT)	Lee	Union
Five Forks, Va.	Apr. 1, "	(SHERIDAN) (WARREN)	Lee	Union
Selma, Ala. .	" 2, "	Wilson	Forrest	Union
(PETERSBURG) (RICHMOND) (CHARLESTON)	" 3, "	Grant	Lee	. . . .
Appomattox C.H.	" 9, "	Lee surrenders to Grant.		
Ft. Blakely, Ala.	" 11, "	(CANBY)	Taylor	Union
Montgomery, Ala.	" 12, "	The city surrenders to Wilson.		
Surrender of	" 26, "	Johnston to Sherman.		
Surrender of	May 4, "	Dick Taylor to Gen. Canby.		
Surrender of	" 10, "	Tallahassee, Fla., by McCook.		
Surrender of	" 26, "	Kirby Smith's Army.		

SUMMARIES, ETC.

PRINCIPAL NAVAL BATTLES OF THE CIVIL WAR.

1862, Feb, 6, Ft. Henry, Tenn., captured by Foote; Feb. 8, Roanoke Island captured by Goldsborough and Burnside; Feb. 16, Ft. Donelson, Tenn., forces of Grant and Foote; Mar. 8, Confed. Ram Merrimac "sinks" U.S. Frigates Cumberland and Congress, Hampton Roads, Va.; Mar. 9, Federal Monitor disables Merrimac; Apr. 6, Pittsburg Landing; Apr. 8, Capture of Island No. 10; Apr. 11, Ft. Pulaski, Ga. captured by land and naval forces; Apr. 24, Fts. Jackson, St. Phillip, and New Orleans; May 13, Natchez, Miss., captured by Farragut; July 1, Malvern Hill.

1863, Ft. Hindman, Ark., on Jan. 11, also U.S. Steamer Hatteras sinks Confed. Alabama; Jan. 11, Monitor Wechawken captures Confed. Ram Atlanta; Jan. 18, Vicksburg, Miss., July 8, Pt. Hudson, Miss., captured, also Natchez.

1864, June 19, U.S. Steamer Kearsage "sinks the Alabama" off Cherbourg, France; Aug. 5, Mobile, Ala.

1865, Jan. 15, Ft. Fisher, N.C., captured by Terry and Porter.

NUMBER OF TROOPS IN THE WARS.

WARS.	U.S. REGULARS.	MILITIA & VOLUNTEERS	TOTAL.
Revolution	130,711	164,080	309,781
Northwestern Indian Wars .	. . . . .	. . . . .	8,983
War with France (1798) . .	. . . . .	. . . . .	4,593
War with Tripoli	. . . . .	. . . . .	3,330
Creek Indian War	. . . . .	. . . . .	13,781
War of 1812	85,000	471,622	576,622
Seminole War	1,000	6,911	7,911
Black Hawk War	1,339	5,126	6,465
Cherokee Disturbance . . .	. . . .	9,494	9,494
Creek Indian Disturbance .	935	12,483	13,418
Florida Indian War	11,169	29,953	41,122
War with Mexico	30,954	73,776	112,230
Apache, Navajo & Utah War .	1,500	1,061	2,561
Seminole War (1856)	. . . . .	3,687	3,687
Civil War	. . . . .	. . . . .	2,772,408
Co. TOTALS OF CONFEDERATE SIDE WERE ABOUT 800,000			

NUMBER OF BATTLES IN THE WARS.

In the War of 1812 there were 10 battles, 8 combats and assaults, 52 actions and bombardments. In the Mexican War there were 11 pitched battles, and 35 actions, combats, sieges and skirmishes. In the Civil War there were 107 pitched battles, 102 combats, and 362 actions, sieges and lesser affairs. The number of battles, fights and actions waged against Indians have been upward of 1000.

COST OF THE WARS.

The cost of the War of the Revolution was $135,193,703; of the War of 1812, $107,159,063; of the Mexican War, $66,000,000; of the Civil War, $6,500,000,000.

KILLED AND WOUNDED.

In the Civil War the Provost Marshal General's report shows that there were killed in action or died of their wounds while in service: Commissioned officers, 5,221; enlisted men, 90,866. Died from disease or accident: Commissioned officers, 2,321; enlisted men, 182,321; making a total loss of 280,739.

IN SOME OF THE BATTLES.

Groveton, Va., Fed., 6,000–Confed., 12,000; Chancellorville, Fed., 15,000–Confed., 18,000; Gettysburg, Fed., 28,198–Confed., 37,000; Vicksburg, Fed., 3933–Confed., 9,000; Chickamauga, Fed. 10,306–Confed., 17,000; Chattanooga, Fed., 4,000–Confed., 16,000; Nashville, Fed., 6,500–Confederal, 28,000; Cold Harbor, Fed., 9,000–Confed., 8,000.

BEWARE MAN!

As you are now,
so once was I,
As I am now,
you soon shall be.
Soonest or later,
herein you'll lie;
Then be prepared
to follow me.

IN THE CEMETERY.

Must Jesus bear
the cross alone,
And all the world
go free?
No; there's a cross
for every one,
And there's a cross
for me.

The consecrated cross
I'll bear
Till death shall set
me free,
And then go home
my crown to wear-
For there's a crown
for me.

Minnie.

"She faltered by the wayside, and the Angels took her home."

Our Mother.

Died May 3, 1916.
AGED 70 YEARS.

LILLIE,

Infant daughter of
E. & C. Moore,
—DIED—
Oct. 1, 1911. Aged 3 Mos.

"Beneath this stone,
In soft repose,
Is laid a mother's
dearest pride;
A flower that scarce
had waked to life
And light and beauty,
ere it died."

SACRED

TO THE MEMORY OF
H. M. SMITH,
WHO DEPARTED THIS LIFE
August 13, 1917.
Aged 63 Years.

"Dying is but going home."

LITTLE EDDY,

—DIED—
October 10, 1937.
Aged 5 Y's. 9 M's.

"'Tis a little grave,
but O, how care,
For world-wide hopes
are buried there;
How much of light,
how much of joy,
Is buried with a
darling boy."

ANDREW COX,

December 19, 1917.
Aged 36 Years.

LENA WEST,

ENTERED SPIRIT LIFE
October 27, 1947.
Aged 21 Y's, 3 M's.

"O land beyond the
setting sun!
O realm more fair
than poets dream!
How clear thy silvery
streamlets run,
How bright thy golden
glories gleam!"

Rev. H. Marx,

BORN,
November 4, 1893.
DIED,
December 19, 1951.

He died as he lived-
a Christian.

CHARLIE.

The Angels called
him on a sunny
day,
September 3, 1933.
AGED 4 Y's, 3 M's, 6 D's.

"This lovely bud,
so young, so fair,
Called hence by
early doom,
Just came to show
how sweet a flower
In Paradise would
bloom."

MARION,

Husband of
E. E. Stephenson.
Born Oct. 1, 1907.
Died May 3, 1971.

"Heaven's
eternal year is
thine."

STEPHENSON.

ETTA EVAN,

WIFE OF
H. H. MARSH.

Aged 41 Years.
November 1, 1937.

"Where immortal
spirits reign,
There we shall
meet again."

DAVID D. PORTER

Admiral U.S.N.
Died Feb. 13, 1891.
Aged 79 Years.

Edward M.,

SON OF
M. & H. More.
—DIED—
March 17, 1941.
Aged 17 Y's, 3 M's.

H. J. BELDEN,

CAPT. OF
51st Regiment
Ill. Volunteers,
Killed at the Battle
of Perryville,
October 8, 1864.
Aged 51 Y's, 6 M's, 10 D's.

R. M. HANCOCK,

—DIED—
February 7, 1899.
Aged
59 Y's, 3 M's, 4 D's.

MABEL B. HUNT,

BORN INTO SUMMER LAND
September 1, 1927.
Aged 19 Y's, 7 M's.

"Amiable,
she won all;
intelligent, she
charmed all; fervent,
she loved all;
and dead, she
saddened
all."

ABRAHAM LINCOLN.

Sixteenth
President of the
United States,
Born
February 12, 1809.
Died
April 15, 1865.

FROM PENCILLED BY THE AUTHOR.

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IN THE CEMETERY, CONTINUED.

EPITAPHS

Epitaphs should be condensed into a few words, usually not more than four lines. Following is a classified list.

INFANTS.

"Happy infant, early blest!
Rest in peaceful slumbers, rest."

"Sweet flower, transplanted to a clime
Where never comes the blight of time."

"To us for sixteen anxious months,
His infant smile was given,
And then he bade farewell to earth
And went to live in heaven."

"Ere sin could blight, or sorrow fade,
Death came with friendly care;
The opening bud to heav'n conveyed,
And bade it blossom there."

CHILDREN.

Gentle, Sweet little ———
Charlie.

"We shall all go home to our Father's house,
To our Father's house in the skies,
Where the hope of our souls shall have no blight,
And our love no broken ties;
We shall roam on the banks of the River of Peace,
And bathe in its blissful tide;
And one of the joys of our heaven shall be
The little boy that died."

"Suffer little children to come unto me."

"There, in the Shepherd's bosom,
White as the drifted snow,
Is the little lamb we missed one morn,
From the household flock below."

"Of such is the kingdom of Heaven."

"My Lord hath need of these flow'rets gay,"
The Reaper said, and smiled;
"Dear tokens of the earth are they,
Where He was once a child."

"The morning flowers display their sweets,
And gay their silken leaves unfold;
As careless of the noonday heats,
And fearless of the evening cold.
Nipped by the wind's unkindly blast,
Parch'd by the sun's directer ray,
The momentary glories waste,
The short-lived beauties die away."

PARENTS.

Father
Our Mother.

"In after Time we'll meet Her."

"Her children rise up and call her blessed."

"We loved her."

"Sweet is the image of the brooding dove;
Holy as heaven is a mother's tender love.
Soon did these eyes their trembling lustre close,
And welcomed the dreamless night of long repose."

"I know his face is hid—Under the coffin lid;
Closed are his eyes; cold is his forhead fair.
My hand that marble felt—O'er it in prayer I knelt;
Yet my heart whispers that—he is not here."

SISTER.

Darling Sister.

"Rest, Darling Sister, Rest."

"Yet, though thou wear'st the glory of the sky,
We know thou'lt keep the same beloved name,
The same fair, thoughtful brow and gentle eye,
Lovlier in heaven's sweet climate, yet the same."

"Shed not for her the bitter tear,
Nor give the heart to vain regret,
'Tis but the casket that lies here,
The gem that filled it sparkles yet."

"She was but as a smile,
Which glistens in a tear,
Seen but a little while,
But, oh! how loved, how dear!"

"Death lies on her, like an untimely frost
Upon the sweetest flower of all the field."

"Early, bright, transient, chaste as morning dew,
She sparkled, was exhal'd, and went to heaven."

"The day without a cloud hath pass'd,
And thou wert lovely to the last;
Extinguish'd, not decay'd!
As stars that shoot along the sky
Shine brightest as they fall from high."

BROTHER.

"We saw not the Angels who met him there,
The gates of the city we could not see.
Over the river, over the river,
My darling stands waiting to welcome me."

"So the bird of my bosom fluttered up to the dawn,
A window was opened—my darling was gone!
A truant from time, from tears, and from sin,
For the angel on watch took the wanderer in."

"From meadows fanned by heaven's life-breathing wind,
In the resplendence of that glorious sphere,
And larger movements of the unfettered mind,
Come darling, oft, and meet me here."

"Death loves a shining mark."

"Death is the gate of life."

"Gone before us, O our brother,
To the spirit land!
Vainly look we for another,
In thy place to stand."

"Known and unknown, human, divine,
Sweet darling hand, and lips and eye;
Dear heavenly one, thou canst not die,
Mine, mine forever, ever mine."

CHRISTIANS.

"Christ is my hope."

"There shall be no Night there."

"He carries the lambs in his bosom."

"I love them that love me, and they that seek me early shall find me."

"Judge not the Lord by feeble sense,
But trust Him for His grace;
Behind a frowning providence,
He hides a smiling face."

"Not thus his nobler part shall dwell
A prisoner in this narrow cell;
But he, whom we now hide from men,
With youth renewed, shall live again."

"Though I walk through the valley of the shadow of death, I will fear no evil, for Thou art with me."

"Thy rod and Thy staff, they comfort me."

"Sweet is the scene when virtue dies!
When sinks a righteous soul to rest,
How mildly beam the closing eyes,
How gently heaves the expanding breast!"

"Here I lay my burden down,
Change the cross into the crown."

"I shall know the loved who have gone before,
And joyfully sweet will the meeting be,
When over the river, the peaceful river,
The angel of death shall carry me."

"Because I lived, ye shall live also."

"Dear is the spot where Christians sleep,
And sweet the strains that angels pour.
O! why should we in anguish weep?
They are not lost, but gone before."

"I am the resurrection and the life."

"Life's duty done, as sinks the day,
Light from its load the spirit flies;
While heaven and earth combine to say,
How blest the righteous when he dies."

"He giveth his beloved sleep."

MISCELLANEOUS.

"Green be the turf above thee,
Friend of my better days;
None knew thee but to love thee,
Nor named thee but to praise."

"By foreign hands thy dying eyes were clos'd,
By foreign hands thy decent limbs compos'd,
By foreign hands thy humble grave adorn'd,
By strangers honor'd, and by strangers mourn'd."

"All is Well."

"We will Meet again."

"Over in the Summer Land."

"Farewell to thee, my house of clay!
Long have we two been bound together,
But I forsake thy porch to-day,
And yield thee up to wind and weather.
Sleep, sleep at last! thy sleep shall be
My rest, my strength, my victory."

"Absent, not Dead."

"Rest in peace, thou gentle spirit,
Throned above—
Souls like thine with God inherit
Life and love."

"Gone Home."

"Death, thou art but another birth,
Freeing the spirit from the clogs of earth."

"O Death! where is thy sting? O Grave! where is thy victory?"

"Gone, but not forgotten."

"A happier lot than ours, and larger light surrounds thee there."

"Life is real, life is earnest,
And the grave is not its goal;
'Dust thou art, to dust returnest,
Was not spoken of the soul."

"We only know that thou hast gone,
And that the same returnless tide,
Which bore thee from us, still glides on,
And we, who mourn thee, with it glide."

"The Morning Cometh."

"Where immortal spirits reign,
There we shall meet again."

"The sands are numbered that made up my life."

"The boast of heraldry, the pomp of power,
And all that beauty, and all that wealth e'er gave,
Await alike the inevitable hour,
The paths of glory lead but to the grave."

"Good-bye, proud world! I'm going home,
Thou art not my friend, and I'm not thine."

"Sleep the sleep that knows no breaking,
Morn of toil, nor night of waking."

"Death is only kind to mortals."

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ADVICE.

"Desire not to live long, but to live well; How long we live, not years, but actions tell."

"Press on! our life is not a dream,
Though often such its mazes seem;
We were not born to live at ease,
Ourselves alone to aid and please."

"As you travel through life, scatter words and gentle deeds; in so doing you will enrich your soul. Withhold them and it tends to poverty."

"Give every man thine ear, but few thy voice; Take each man's censure, but reserve thy judgment."

"Know when to speak—for many times it brings Danger, to give the best advice to kings."

"Fear not the anger of the wise to raise; Those best can bear reproof who merit praise."

"I find, quoth Mat, reproof is vain!
Who first offend will first complain."

"Good advice is one of those injuries which a good man ought, if possible, to forgive, but at all events to forget at once."

AFFECTION.

"When the golden sun is setting,
And your heart from care is free,
When o'er a thousand things you're thinking
Will you sometimes think of me!"

"Years have not seen—time shall not see
The hour that tears my soul from thee."

"There are moments of mingled sorrow and tenderness, which hallow the caresses of affection."

"When years and months have glided by,
And on this page you cast your eye,
Remember 'twas a friend sincere
That left this kind remembrance here,
With best wishes for your future cheer."

"There are few mortals so insensible that their affections cannot be gained by mildness, their confidence by sincerity, their hatred by scorn or neglect."

"Passing through life's field of action,
Lest we part before its end,
Take within your modest volume
This memento from a friend."

"Hearts may be attracted by assumed qualities, but the affections are only to be fixed by those that are real."

"We seek what we love; our efforts follow our affections, whether we know it or not."

BIRTHDAY.

"I wish thee every blessing
That can attend thee here;
And may each future birthday prove
My wish to be sincere."

"My birthday!—How many years ago!
Twenty or thirty!" Don't ask me!
"Forty or fifty!" How can I tell?
I do not remember my birth, you see!"

"Little trouble and still less care,
With ever a faithful heart to share;
Birthdays many, and happy too,
This is the life I wish for you."

"Is that a birthday? 'tis, alas! too clear,
'Tis but the funeral of the former year."

"As beauteous flowers in garlands intertwine,
May peace and love to cheer thy heart combine
To give you a very happy birthday!"

"May these flowers, presented on your birthday be emblematical of the purity of your life."

"May Spring its blossoms round thee strew,
And Summer, deck'd in mantle new,
Come forth to greet thee;
May Autumn fruitage crown thy year,
And Winter, with its jovial cheer,
Bring friends to meet thee."

"Like sunbeams to the drooping flowers,
Good-will our lives doth bless;
It furthers every wish of ours,
And joys in our success.
So may its rays towards you flow,
That morn but friends your heart may know."

Lovingly take this birthday souvenir,
And for my sake esteem it dear!

"May the morn of thy birth break in gladness, and the day teem with light-hearted mirth that shall last always."

CHRISTMAS.

"True love shall live thro' sorrow's wintry storm,
And bloom afresh on this glad Christmas morn."

"Christmas is coming, and what will it bring?
Many a pleasant and gladdening thing!
Meetings and greetings, and innocent mirth;
All that is brightest and best on the earth."

"As Christmas offerings meet your eyes,
Still closer be sweet friendship's ties."

"Oh joyous be your Christmas-tide,
And bring your New Year too;
To you may love mis'er be denied;
May all your friends be true."

Be of good cheer, for Christmas comes but once a year.

"Oh! may thy Christmas happy be,
And naught but joy appear,
Is now the wish I send to thee,
And all I love most dear."

"Oh bird so softly singing
Your song of pleasant days,
Go sing to her I fondly love,
Through the wintry cold and bare.
When the heart is light, the days are bright,
And the sun seems ever near;
So sing her your lay this Christmas day,
And through all the bright New Year."

"Now Christmas comes with hearty cheer,
May kindly thoughts go round,
And bring to you a glad New Year,
With peace and plenty crowned."

"Christmas comes, let every heart
In Christmas customs bear a part
The 'old' be 'young;' the sad be gay,
And smiles chase every care away."

"May health and joy, and peace be thine
Upon this Christmas day,
And happy faces round thee shine
As plenteous as the flowers in May."

FRIENDSHIP.

"On the broad highway of action,
Friends of worth are few and few;
But when one has proved her friendship,
Cling to her who clings to you."

"There are few friends in this wide world
Whose love is fond and true;
But———, when you count them o'er,
Place me among the few."

"In future years, should trusted friends
Depart like summer birds;
And all the comfort memory lends,
Is false and honeyed words,
Turn then to me who fain would prove,
However thy lot be cast,
That naught his heart can ever move
From friendship of the past."

"In the evening of life, cherish the remembrance of one who loved thee in its morning."

"Let not our friendship be like the rose, to sever;
But, like the evergreen, may it last forever."

"A day for toil, an hour for sport,
But for a friend life is too short."

"Thick waters show no images of things;
Friends are each other's mirrors, and should be
Clearer than crystal, or the mountain-springs,
And free from clouds, design, or flattery."

"A generous friendship no cold medium knows,
It burns with one love, with one resentment glows."

FROM NEW COPY BY THE AUTHOR

HUMOROUS.

"Sailing down the stream of life,
In your little bark canoe,
May you have a pleasant trip,
With just room enough for two."

"Man may be happy, if he will,
I've said it often, and I think so still;
Roses may smooth life's journey, and adorn;
But thou hast full leave to tread upon a thorn."

"Dread fevers burn, and ague freezes,
Rheumatics gnaw, and colic squeezes;
But thou, toothache, surely bear'st the bell,
And hast thy place with the priests of hell."

"The world is full of fools,
An he who would none view
Must shut himself in a cave,
And break his mirror too."

"Your arithmetic only can trip,
When to kiss and to count you endeavor;
But eloquence glows on your lip,
When you swear that you'll love me forever."

"Come, gentle Spring! ethereal mildness, come!"
O! Thompson, void of rhyme as well as reason,
How couldst thou thus poor human nature hum?
There's no such season.
The Spring! I shrink and shudder at her name!
For why, I find her breath a bitter blighter!
And suffer from her blows as if they came
From Spring the Fighter."

"May your cheeks retain their dimples,
May your heart be just as gay,
Until some manly voice shall whisper,
'Dearest, will you name the day?'"

"I care not much for gold or land,
Give me a mortgage here and there,
Some good bank stock—some note of hand,
Or trifling railroad share,
I only ask that Fortune send
A little more than I can spend."

"A long life, and a happy one;
A tall man, and a jolly one—
Like—well—you know who!"

LOVE.

"Love me little, love me long,
Do not flirt, for it is wrong."

"The heart that has truly loved never forgets,
But as truly loves on to the close."

"I bring no gift of passion, I breathe no tone of love,
But the freshness and the purity of a feeling far above;
I love to turn to thee, fair girl, as one within whose heart
Earth hath no stain of vanity, and fickleness no part."

"Dost thou know, love, that thy smile
Makes the whole world bright for me?
Just as sunrise pours a sudden
Purple glory on the sea.
Ah! had I that power, ever
Should the world look bright to thee."

"When words we want, love teacheth to indite;
And what we blush to speak, she bids us write."

"Rank is good, and gold is fair,
And high and low make ill;
But love has never known a law
Beyond its own sweet will."

"Love, life's first centre, includes heart and mind."

MARRIAGE.

"Precious and lovely, I yield her to thee;
Take her, the gem of thy dwelling to be.
She who was ever my solace and pride,
Flees from my bosom to cling to thy side."

"There's a bliss beyond all that minstrel has told,
When two that are linked in one heavenly tie,
With heart never changing, and brow never cold,
Love on through all ills, and love till they die."

"Wedlock's a saucy, sad, familiar state,
Where folks are very apt to scold and hate—
Love keeps a modest distance, is divine,
Obliging, and says every thing that's fine."

"Misses! the tale that I relate
This lesson seems to carry—
Choose not alone a proper mate,
But proper time to marry."

"Marriage from love, like vinegar from wine—
A sad, sour, sober beverage—by time
Is sharpened from its high celestial flavor
Down to a very homely household savor."

NEW YEAR.

"On this New Year's morning
My wishes take their flight,
And wing to thee a greeting
That would make all things bright."

"We cannot look into the future,
We cannot tell if the New Year
Will bring us fresh sorrows to mourn o'er,
Or bring us fresh blessings to cheer."

"For friends we strive to pierce
The future, dense and dark,
But not a ray of light
We see, not faintest spark;
But yet while we have faith to cheer,
We trusting wish 'A bright New Year.'"

"O childhood is a golden time,
When all the world is bright,
When sunshine comes with every morn,
Sweet dreams with every night.
Were I a fairy, I would give
To thee a magic kiss,
That should ensure for thee New Year,
As fair a time as this."

"Health and prosperity
Your life to cheer,
With every blessing
For the bright New Year."

SENTIMENT.

"One port, methinks, alike we seek,
One purpose hold where'er we fare;
O bounding breeze, O rushing seas,
At last, at last unite us there."

"Full many a gem of purest ray serene
The dark, unfathomed caves of ocean bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

"When the name I write here is dim on the page,
And the leaves of your album are yellow with age,
Still think of me kindly, and do not forget
That, wherever I am, I remember you yet."

"The massive gates of circumstance
Are turned upon the slightest hinge,
And thus some seeming pettiest chance,
Oft gives to life its after tinge."

THANKSGIVING.

"Thanksgiving-Day again is here,
And Turkey is the leading question;
I wish, with heartiness sincere,
That you may have good digestion."

"There is a kind of gratitude in thanks,
Though it be barren, and bring forth but words."

TIME.

"Hours are golden links—God's token—
Reaching heaven, but one by one;
Take them, lest the chain be broken
Ere thy pilgrimage be done."

"We should count time by heart-throbs; he most lives who thinks most, speaks the noblest, acts the best."

"Lost, yesterday, somewhere between sunrise and sunset, two golden hours, each set with sixty diamond minutes. No reward offered, for they are gone forever"

"The lapse of time and rivers is the same;
Both speed their journey with a restless stream;
The silent pace with which they steal away,
No wealth can bribe, no prayers persuade to stay."

"May the morn of thy life be bright and joyous, the noonside peaceful and happy, and the sunset gloriously hopeful, is the wish of your friend."

TITLE PAGE.

"Precious book of charming glaze,
Gems of thought may here be cast,
Names that time may not erase,
Pleasant mementos of the past."

"Go forth thou little volume,
I leave thee to thy fate;
To love and friendship truly,
Thy leaves to dedicate."

"Go, little book, thy destined course pursue,
Collect memorials of the just and true,
And beg of every friend so near
Some token of remembrance dear."

"My dear friends, there is an Album.
Full of leaves of snowy white,
Where no name is ever tarnished.
But forever pure and bright.
In that Book of Life, God's Album,
May your name be penned with care
And may all who herein write,
Have their names forever there."

WELL WISHES.

"May God's mercy ever guide thee,
Safe o'er all thy thorny road;
And His grace, what'er betide thee,
Lead thee home to His abode."

"May your life be like the snowflake, which leaves a mark, but not a stain."

"May happiness ever be thy lot,
Wherever thou shalt be;
And joy and pleasure light the spot
That may be home to thee."

"May Heaven on you its choicest blessings shower,
Is the sincere wish of your friend."

"Roses, without thorns, for thee."

"May your days in joy be passed
With friends to bless and cheer,
And each year exceed the last
In all that earth holds dear."

"May Future with her kindest smile,
Wreath laurels for thy brow;
May loving angels guard and keep thee
Ever pure as thou art now."

"May He who hath pencilled the leaves with beauty, given the flowers their bloom, and lent music to the lay of the timid bird, graciously remember thee in that day when He shall gather His jewels."

"May the chain of friendship formed by the links which are dropped here, unite you more closely in spirit with the friends who have worked it."

NAMES OF STATES.	AREA*	ADMITTED.	CAPITAL.	SCHOOL AGE.	EXTREME LENGTH MILES.	EXTREME BREADTH MILES.	SETTLED, WHEN AND BY WHOM.	POPULAR NAME.	FICTITIOUS NAME OF INHABITANTS.
ALABAMA	52 250	DEC. 14, 1819	MONTGOMERY.	7 TO 21	330	200	1702, BY THE FRENCH.	COTTON STATE	LIZARDS.
ALASKA	557 390		SITKA.		1100	800		LAND OF THE MIDNIGHT SUN.	SEAL FISHERS.
ARIZONA	113 020		PHOENIX.	6 " 18	390	325	1526, " " SPANIARDS.	LAND OF CANONS.	SILVER HUNTERS.
ARKANSAS	53 850	JUNE 15, 1836	LITTLE ROCK.	6 " 21	240	275	1685 " " FRENCH.	BEAR STATE.	TOOTH PICKS.
CALIFORNIA	158 360	SEPT. 9, 1850	SACRAMENTO.	5 " 17	770	375	1768 " " SPANIARDS.	GOLDEN STATE.	GOLD HUNTERS.
COLORADO	103 925	AUG. 1, 1876	DENVER.	6 " 21	270	390	1858 " " MINERS.	CENTENNIAL STATE.	ROVERS.
CONNECTICUT	4 990	JAN. 9, 1788	HARTFORD.	4 " 16	75	90	1635 " " ENGLISH.	FREESTONE OR NUTMEG STATE.	WOODEN NUTMEGS.
DELAWARE	2 050	DEC. 7, 1787	DOVER.	6 " 21	110	35	1638 " " SWEDES.	DIAMOND OR BLUE HEN STATE.	MUSKRATS.
DISTRICT OF COLUMBIA	70		WASHINGTON.	6 " 17	10	9	1660 " " ENGLISH.		
FLORIDA	58 680	MAR. 3, 1845	TALLAHASSEE.	6 " 21	460	400	1565 " " SPANIARDS.	PENINSULAR STATE.	FLY UP THE CREEKS.
GEORGIA	59 475	JAN. 2, 1788	ATLANTA.	6 " 18	315	250	1733 " " ENGLISH.	EMPIRE STATE OF THE SOUTH. PEACH STATE.	BUZZARDS.
IDAHO	84 800	JULY 3, 1890	BOISE CITY.	5 " 21	490	305	1860 " " MINERS.	GLACIER STATE.	FORTUNE SEEKERS.
ILLINOIS	56 650	DEC. 3, 1818	SPRINGFIELD.	6 " 21	380	205	1682 " " FRENCH.	PRAIRIE OR SUCKER STATE.	SUCKERS.
INDIANA	36 350	DEC. 11, 1816	INDIANAPOLIS.	6 " 21	265	160	1702 " " FRENCH.	HOOSIER STATE.	HOOSIERS.
INDIAN TERR. ☆	31 400				210	210	1834		
IOWA	56 025	DEC. 28, 1846	DES MOINES.	5 " 21	210	300	1788, BY EMIGRANTS FROM THE NORTH-EAST.	HAWKEYE STATE.	HAWKEYES.
KANSAS	82 080	JAN. 29, 1861	TOPEKA.	5 " 21	200	400	1820, BY EMIGRANTS FROM THE WESTERN STATES.	GARDEN OF THE WEST OR SUNFLOWER STATE.	JAYHAWKERS.
KENTUCKY	40 400	JUNE 1, 1792	FRANKFORT.	6 " 20	175	350	1767, BY EMIGRANTS FROM VIRGINIA.	CORN CRACKER STATE.	CORN CRACKERS.
LOUISIANA	48 720	APR. 30, 1812	BATON ROUGE.	6 " 18	275	280	1718, BY THE FRENCH.	CREOLE STATE.	CREOLES.
MAINE	33 040	MAR. 15, 1820	AUGUSTA.	4 " 21	235	205	1624, " " ENGLISH.	LUMBER OR PINE TREE STATE.	FOXES.
MARYLAND	12 210	APR. 28, 1788	ANNAPOLIS.	6 " 21	120	200	1634, " " ENG. ROM. CATH.	OLD LINE STATE.	CLAM HUMPERS.
MASSACHUSETTS	8 315	FEB. 6, 1788	BOSTON.	5 " 15	110	190	1620, " ENG. PURITANS.	BAY STATE.	YANKEES.
MICHIGAN	58 915	JAN. 26, 1837	LANSING.	5 " 20	400	310	1668, " " FRENCH.	WOLVERINE STATE. OR LAND OF THE	WOLVERINES.
MINNESOTA	83 365	MAY 11, 1858	ST. PAUL.	5 " 21	400	350	1819, " " FRENCH.	GOPHER STATE.	GOPHERS.
MISSISSIPPI	46 810	DEC. 10, 1817	JACKSON.	5 " 21	340	180	1716, " " FRENCH.	BAYOU STATE.	TADPOLES.
MISSOURI	69 415	AUG. 10, 1821	JEFFERSON CITY.	6 " 20	280	300	1755, " " FRENCH.	THE PENNSYLVANIA OF THE WEST.	PUKES.
MONTANA	146 080	NOV. 8, 1889	HELENA.	4 " 21	315	580	1852, BY EMIGRANTS FROM THE SOUTH.	STATE OF THE ROCKIES	MINERS.
NEBRASKA	77 510	MAR. 1, 1867	LINCOLN.	5 " 21	205	415	1850, BY EMIGRANTS FROM THE EAST.	BLACKWATER STATE	BUG EATERS.
NEVADA	110 700	OCT. 31, 1864	CARSON CITY.	6 " 18	485	315	1848, BY EMIGRANTS FROM CALIFORNIA.	SAGE HEN STATE	SAGE HENS.
NEW HAMPSHIRE	9 305	JUNE 21, 1788	CONCORD.	5 " 15	185	90	1623, " ENG. PURITANS.	GRANITE STATE.	GRANITE BOYS.
NEW JERSEY	7 815	DEC. 18, 1787	TRENTON.	5 " 18	160	70	1620, " DUTCH AND DANES.	JERSEY BLUE STATE.	BLUES, CLAM CATCHERS.
NEW MEXICO	122 580		SANTE FE.	7 " 18	390	350	1582, " THE SPANIARDS.	INVALID'S PARADISE	SPANISH INDIANS.
NEW YORK	49 170	JULY 26, 1788	ALBANY.	5 " 21	310	320	1614, " " DUTCH.	EMPIRE OR ENCLOSED STATE.	KNICKERBOCKERS.
NORTH CAROLINA	52 250	NOV. 21, 1789	RALEIGH.	6 " 21	200	520	1650, " " ENGLISH.	TAR STATE.	TARHEELS.
NORTH DAKOTA	70 795	NOV. 2, 1889	BISMARCK.	7 " 20	210	360	1812, " EMIGRANTS FROM THE MIDDLE STATES.	LAND OF MANY LAKES	SQUATTERS.
OHIO	41 060	JAN. 19, 1803	COLUMBUS.	6 " 21	265	230	1788, " EMIGRANTS FROM NEW ENGLAND.	BUCKEYE STATE.	BUCKEYES.
OKLAHOMA	39 030		GUTHRIE.		210	365	1889, " EMIGRANTS FROM SURROUNDING STATES.	LAND OF THE BOOMERS.	BOOMERS.
OREGON	96 030	FEB. 14, 1859	SALEM.	4 " 20	290	375	1811, " EMIGRANTS FROM NEW YORK.	BEAVER STATE.	HARD CASES.
PENNSYLVANIA	45 215	DEC. 12, 1787	HARRISBURG.	6 " 21	180	300	1638, " THE SWEDES.	KEYSTONE STATE.	PENNAMITES OR LEATHER HEADS.
RHODE ISLAND	1 250	MAY 29, 1790	NEWPORT-PROVIDENCE.	5 " 15	50	35	1636, " " ENGLISH.	LITTLE RHODY.	GUNFLINTS.
SOUTH CAROLINA	30 570	MAY 23, 1788	COLUMBIA.	6 " 18	215	235	1670, " " ENGLISH.	PALMETTO STATE.	WEASELS.
SOUTH DAKOTA	77 650	NOV. 2, 1889	PIERRE.	7 " 20	245	380	1812, " EMIGRANTS FROM MIDDLE STATES.	SQUATTER STATE.	SQUATTERS.
TENNESSEE	42 050	JUNE 1, 1796	NASHVILLE.	6 " 21	120	430	1756, " EMIGRANTS FROM NORTH CAROLINA.	BIG BEND STATE.	WHELPS.
TEXAS	265 780	DEC. 29, 1845	AUSTIN.	8 " 18	620	760	1685, " THE FRENCH.	LONE STAR STATE.	BEEF EATERS.
UTAH	84 970		SALT LAKE CITY.	6 " 18	345	275	1847, " " MORMONS.	MORMONS' DOMAIN.	POLYGAMISTS.
VERMONT	9 565	MAR. 4, 1791	MONTPELIER.	5 " 20	155	90	1724, " EMIGRANTS FROM MASSACHUSETTS.	GREEN MOUNTAIN STATE	GREEN MOUNTAIN BOYS.
VIRGINIA	42 450	JUNE 25, 1788	RICHMOND.	5 " 21	205	425	1607, " THE ENGLISH.	OLD DOMINION.	BEAGLES.
WASHINGTON	69 180	NOV. 11, 1889	OLYMPIA.	6 " 21	230	340	1845, " EMIGRANTS FROM CALIFORNIA.	SOUND STATE.	WASHINGTONIANS.
WEST VIRGINIA	24 780	JUNE 19, 1863	CHARLESTON.	6 " 21	225	200	1607, " THE ENGLISH.	PAN HANDLE STATE.	PAN HANDLES.
WISCONSIN	56 040	MAY 29, 1848	MADISON.	4 " 20	300	290	1669, " " " FRENCH.	BADGER STATE.	BADGERS.
WYOMING	97 [illegible]	JULY 10, 1890	CHEYENNE.	7 " 21	275	365	1869, " EMIGRANTS FROM MIDDLE STATES.	BIG HORN STATE	BIG HORNS.
UNITED STATES	3602990		WASHINGTON.		1600	2720	1565, " THE SPANIARDS AT ST. AUGUSTINE, FLA.	COLUMBIA OR UNCLE SAM.	BROTHER JONATHAN

*INCLUDES WATER SURFACE. ☆INCLUDES THE CHEROKEE COUNTRY AND NO MAN'S LAND.

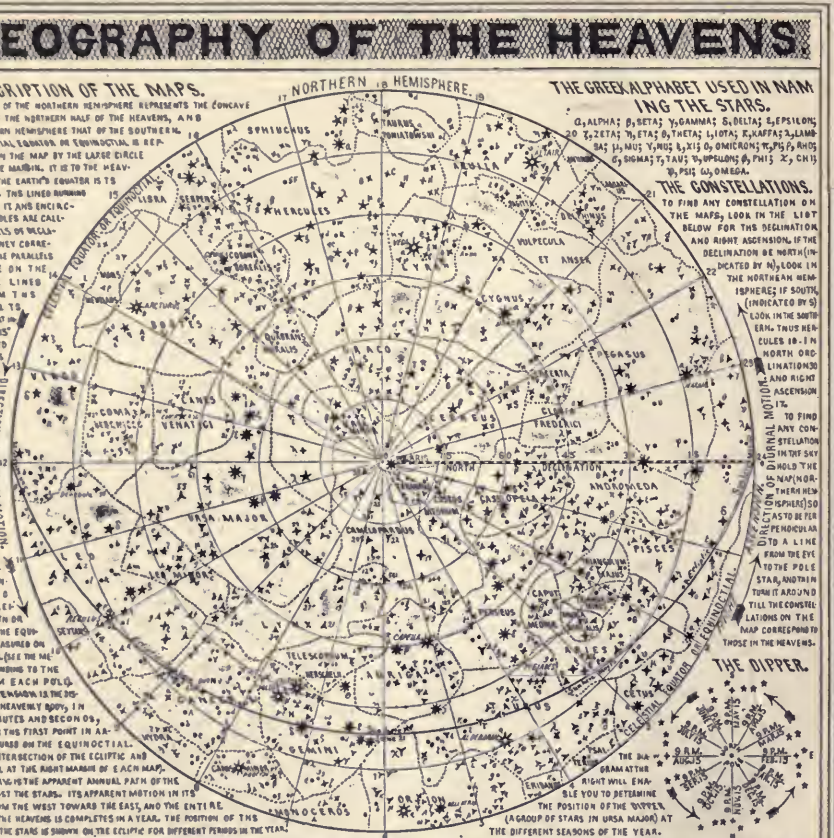
STATISTICAL BUREAU OF THE UNITED STATES—CONTINUED.

NAMES OF STATES.	ABBREVIATION.	SIGNIFICATION OF NAME.	INTEREST. LEGAL RATE.	INTEREST. BY CONTRACT.	GRACE.	STATUTES OF LIMITATION. JUDGMENTS. Years.	STATUTES OF LIMITATION. NOTES. Years.	STATUTES OF LIMITATION. OPEN ACCTS. Years.	MARRIAGE LAWS. AGE OF CONSENT. MALE	MARRIAGE LAWS. AGE OF CONSENT. FEMALE	MOTTO (ON GREAT SEAL).	TROOPS FURNISHED FED'L ARMY DURING CIV. WAR.
ALABAMA	ALA.	IND., HERE WE REST.	8	8	YES	20	6*	3	17	14	HERE WE REST.	
ALASKA	ALAS.	IND., A GREAT COUNTRY OR CONTINENT.									(NONE).	
ARIZONA	ARIZ.	SPAN., SAND HILLS.	6	10	YES	10	5	3	18	16	LAT.-'DITAT DEUS'. (TERRITORIAL).	
ARKANSAS	ARK.	FR. AND IND.; BOW OF SMOKY WATERS.	7	ANY		5	3	2	17	14	LAT.-'REGNANT POPULI'- THE PEOPLE RULE.	8 289
CALIFORNIA	CAL.	SPAN., HOT FURNACE.	7	ANY	NO	5	4¶	2	18	15	GREEK-'EUREKA'- I HAVE FOUND IT.	152 15
COLORADO	COL.	SPAN., RED OR COLORED.	8	ANY	YES	6	6	6	14	12	LAT.-'NIL SINE NUMINE'- NOTHING WITHOUT GOD.	1 762
CONNECTICUT	CONN.	IND., THE LONG RIVER.	6	6	YES	..	6	6	14	12	LAT.-'QUI TRANSTULIT, SUSTINET'- HE WHO TRANSPLANTED, STILL SUSTAINS.	57 374
DELAWARE	DEL.	IN HONOR OF LORD DE LA WAR.	6	6	YES	20	6	3	14	12	LIBERTY AND INDEPENDENCE.	13 651
DIST. OF COLUM.	D.C.	IN HONOR OF COLUMBUS.	6	10	YES	12	3	3	14	12	LAT.-'JUSTICIA OMNIBUS'- JUSTICE TO ALL.	16 872
FLORIDA	FLA.	SPAN., FLOWERY.	8	*10		20	5	2	14	12	IN GOD OUR TRUST.	
GEORGIA	GA.	IN HONOR OF GEO. II. OF ENG.	7	8	YES	7	7	4	17	14	WISDOM, JUSTICE, AND MODERATION.	
IDAHO	ID.	IND., GEM OF THE MOUNTAIN.	10	18	NO	6	6	3	18	18		
ILLINOIS	ILL.	IND., TRIBE OF MEN.	5	7	YES	7	10	5	17	14	STATE SOVEREIGNTY-NATIONAL UNION.	258 217
INDIANA	IND.	FROM THE WORD 'INDIAN'.	6	8	YES	10	10	6	18	16	(NONE).	197 147
INDIAN TERR.	IND.TER.	NAMED FROM THE INDIANS.										
IOWA	IO.	IND., THE SLEEPY ONES.	6	8	YES	10	10	5	16	14	OUR LIBERTIES WE PRIZE— OUR RIGHTS WE WILL MAINTAIN.	75 860
KANSAS	KAN.	IND., SMOKY WATER.	6	10	YES	5	5	2	15	12	LAT.-'AD ASTRA PER ASPERA'- TO THE STARS THROUGH DIFFICULTIES.	20 097
KENTUCKY	KY.	IND., DARK AND BLOODY GROUND.	6	8	YES	15	15	5	14	12	UNITED WE STAND-DIVIDED WE FALL.	78 340
LOUISIANA	LA.	IN HONOR OF LOUIS XIV., OF FRANCE.	5	8	YES	10	5	3	14	12	JUSTICE-UNION-CONFIDENCE.	
MAINE	ME.	FROM 'MAINE' IN FRANCE.	6	ANY	YES	20	6¶	6	14	12	LAT.-'DIRIGO'- I DIRECT OR GUIDE.	71 745
MARYLAND	MD.	IN HONOR OF HENRIETTA MARIA, QUEEN OF ENGLAND.	6	6	YES	12	3¶	¶3	14	12	LAT.-'CRESCITE ET MULTIPLICAMINI'- INCREASE AND MULTIPLY.	49 731
MASSACHUSETTS	MASS.	IND., ABOUT THE GREAT HILLS.	6	ANY	YES	20	6	6	14	12	LAT.-'ENSE PETIT PLACIDUM SUB LIBERTATE QUIETEM.'	152 048
MICHIGAN	MICH.	IND., THE LAKE COUNTRY.	6	8	YES	6	6	6	18	16	LAT.-'SI QUAERIS PENINSULAM AMOENAM CIRCUMSPICE'	90 119
MINNESOTA	MINN.	IND., CLOUDY WATER.	7	10	YES	10	6	6	18	15	FR.-'L'ETOILE DU NORD'- THE STAR OF THE NORTH.	25 034
MISSISSIPPI	MISS.	IND., FATHER OF WATERS.	6	10	YES	7	6	3	14	12	(NONE).	
MISSOURI	MO.	IND., MUDDY WATER.	6	8	YES	20	10	5	15	12	LAT.-'SALUS POPULI SUPREMA EST LEX'- THE WELFARE OF THE PEOPLE IS THE SUPREME LAW.	108 773
MONTANA	MONT.	SPAN., MOUNTAIN.	10	ANY	YES	6	6	2	18	16		
NEBRASKA	NEB.	IND., SHALLOW WATER.	7	10	YES	5	5	4	18	16	POPULAR SOVEREIGNTY-PROGRESS.	1 279
NEVADA	NEV.	SPAN., SNOW COWERED.	7	ANY	YES	6	6	4	18	16	LAT.-'VOLENS ET POTENS'- WILLING AND ABLE.	1 216
NEW HAMPSHIRE	N.H.	FROM THE COUNTY OF HAMPSHIRE, ENG.	6	6	YES	20	6	6	14	12	(NONE).	34 605
NEW JERSEY	N.J.	FROM THE ISLE OF JERSEY.	6	6	YES	20	6	6	14	12	(NONE).	79 511
NEW MEXICO	N.MEX.	SPAN., THE PLACE OF AZTEC GOD OF WAR.	6	12	NO	15	6	4	18	15	LAT.-'CRESCIT EUNDO'- INCREASE IN STRENGTH.	2 395
NEW YORK	N.Y.	IN HONOR OF THE DUKE OF YORK.	6	††6	YES	20	6	6	18	16	LAT.-'EXCELSIOR'- HIGHER.	467 047
NORTH CAROLINA	N.C.	IN HONOR OF CHARLES II. OF ENG.	6	8	YES	10	3¶	3	16	14	(NONE).	3 156
NORTH DAKOTA	N.D.	IND., LEAGUED OR ALLIED.	7	10	YES	20	6	6	18	16	LIBERTY AND UNION NOW AND FOREVER— ONE AND INSEPARABLE.	181
OHIO	O.	IND., BEAUTIFUL RIVER.	6	8	YES	§§5	15	6	18	16	(NONE).	319 659
OKLAHOMA	OK.	IND., BEAUTIFUL LAND.	7	12					18	15		
OREGON	ORE.	SPAN., WILD THYME.	8	10	YES	10	6	1	18	15	LAT.-'ALIS VOLAT PROPRIIS'- SHE FLIES WITH HER OWN WINGS.	617
PENNSYLVANIA	PA. OR PA., PENN.	PENN'S WOODLAND.	6	6	YES	5	6	6	14	12	VIRTUE-LIBERTY-INDEPENDENCE.	366 326
RHODE ISLAND	R.I.	FROM ISLE OF RHODES.	6	ANY	YES	20	6	6	14	12	HOPE.	23 711
SOUTH CAROLINA	S.C.	IN HONOR OF CHARLES II. OF ENG.	7	8	YES	10	6	6	14	12	LAT.-'ANIMIS OPIBUSQUE PARATI'- PREPARED IN MIND AND RESOURCES—PREPARED TO GIVE LIFE AND PROPERTY.	
SOUTH DAKOTA	S.D.	IND., LEAGUED OR ALLIED.	7	12	YES	20	6	6	18	15	UNDER GOD THE PEOPLE RULE.	181
TENNESSEE	TENN.	IND., RIVER OF THE BIG BEND.	6	6	YES	10	6	6	14	12	AGRICULTURE—COMMERCE.	12 077
TEXAS	TEX.	SPAN., FRIEND'S.	8	12	YES	10	4	2	16	14	(NONE).	
UTAH	UTAH	FROM UTAH INDIANS.	10	ANY	YES	5	4	2	14	12		
VERMONT	VT.	FR., GREEN MOUNTAIN.	6	6	YES	6	§§6	6	14	12	FREEDOM AND UNITY.	35 246
VIRGINIA	VA.	IN HONOR OF ELIZABETH, THE VIRGIN QUEEN.	6	6	YES	10	5	2	14	12	LAT.-'SIC SEMPER TYRANNIS'- EVER SO TO TYRANTS.	
WASHINGTON	WASH.	IN HONOR OF GEORGE WASHINGTON.	10	ANY		6	6	3	21	18		895
WEST VIRGINIA	W.VA.	SAME AS VIRGINIA.	6	6	YES	10	10	5	14	12	LAT.-'MONTANI SEMPER LIBERI'- MOUNTAINEERS ARE ALWAYS FREEMEN.	32 003
WISCONSIN	WIS.	IND., WILD RUSHING RIVER.	7	10	YES	20	20	6	18	15	FORWARD.	96 118
WYOMING	WYO.	IND., LARGE PLAINS.	12	ANY	YES	§§5	5	4	18	16		
UNITED STATES.	U.S.	A UNION OF STATES.									E PLURIBUS UNUM, ONE OUT OF MANY.	2 688 323

*Under seal, 10 years. †If made in State, if outside, 2 years. †† No usury, but over 6 per cent. cannot be collected by law. ¶Under seal, 20 years. ¶ Under seal, 12 years. · **Real estate, 20 years. †† New York has by a recent law legalized any rate of interest on call loans of $5000 or upward, on collateral security. §§ Becomes dormant, but may be revived. §§ Under seal, 14 years.

NOTE.—If changes occur, or new States are admitted, make the correction or addition in the table.

GEOGRAPHY OF THE HEAVENS.


NORTHERN HEMISPHERE.
DESCRIPTION OF THE MAPS.
THE MAP OF THE NORTHERN HEMISPHERE REPRESENTS THE CONCAVE SURFACE OF THE NORTHERN HALF OF THE HEAVENS, AND THE SOUTHERN HEMISPHERE THAT OF THE SOUTHERN. THE CELESTIAL EQUATOR OR EQUINOCTIAL IS REPRESENTED ON THE MAP BY THE LARGE CIRCLE AROUND THE MARGIN. IT IS TO THE HEAVENS WHAT THE EARTH'S EQUATOR IS TO THE EARTH. THE LINES DRAWN PARALLEL TO IT AND ENCIRCLING THE POLES ARE CALLED PARALLELS OF DECLINATION. THEY CORRESPOND TO THE PARALLELS OF LATITUDE ON THE EARTH. THE LINES DRAWN FROM THE EQUINOCTIAL TO THE POLES AT INTERVALS OF 15° ARE CALLED MERIDIANS OF RIGHT ASCENSION OR HOUR CIRCLES. THEY CORRESPOND TO THE LINES OF LONGITUDE ON THE EARTH. DECLINATION IS THE DISTANCE OF A HEAVENLY BODY, IN DEGREES, MINUTES AND SECONDS, EITHER NORTH OR SOUTH OF THE EQUINOCTIAL, MEASURED ON A MERIDIAN. SEE THE MERIDIAN EXTENDING TO THE RIGHT FROM EACH POLE. RIGHT ASCENSION IS THE DISTANCE OF A HEAVENLY BODY, IN HOURS, MINUTES AND SECONDS, EAST FROM THE FIRST POINT IN ARIES, MEASURED ON THE EQUINOCTIAL. (SEE THE INTERSECTION OF THE ECLIPTIC AND EQUINOCTIAL AT THE RIGHT MARGIN OF EACH MAP.) THE ECLIPTIC IS THE APPARENT ANNUAL PATH OF THE SUN AMONGST THE STARS. ITS APPARENT MOTION IN ITS PATH IS FROM THE WEST TOWARD THE EAST, AND THE ENTIRE CIRCUIT OF THE HEAVENS IS COMPLETED IN A YEAR. THE POSITION OF THE SUN AMONG THE STARS IS SHOWN ON THE ECLIPTIC FOR DIFFERENT PERIODS IN THE YEAR.
THE GREEK ALPHABET USED IN NAMING THE STARS.
α, ALPHA; β, BETA; γ, GAMMA; δ, DELTA; ε, EPSILON; ζ, ZETA; η, ETA; θ, THETA; ι, IOTA; κ, KAPPA; λ, LAMBDA; μ, MU; ν, NU; ξ, XI; ο, OMICRON; π, PI; ρ, RHO; σ, SIGMA; τ, TAU; υ, UPSILON; φ, PHI; χ, CHI; ψ, PSI; ω, OMEGA.
THE CONSTELLATIONS.
TO FIND ANY CONSTELLATION ON THE MAPS, LOOK IN THE LIST BELOW FOR THE DECLINATION AND RIGHT ASCENSION. IF THE DECLINATION BE NORTH (INDICATED BY N.), LOOK IN THE NORTHERN HEMISPHERE; IF SOUTH, (INDICATED BY S.) LOOK IN THE SOUTHERN. THUS HERCULES 18° IN NORTH DECLINATION 30° AND RIGHT ASCENSION 17h. TO FIND ANY CONSTELLATION IN THE SKY HOLD THE MAP (NORTHERN HEMISPHERE) SO AS TO BE PERPENDICULAR TO A LINE FROM THE EYE TO THE POLE STAR, AND THEN TURN IT AROUND TILL THE CONSTELLATIONS ON THE MAP CORRESPOND TO THOSE IN THE HEAVENS.
THE DIPPER.
THE DIPPER AT THE 9 P.M. OF THE 1ST OF EACH MONTH AS INDICATED BY THE HOUR HAND OF THE CLOCK. THE DIPPER AT 9 P.M. AUGUST 15TH. THE DIPPER AT 9 P.M. SEPTEMBER 1ST. THE DIPPER AT 9 P.M. SEPTEMBER 15TH. THE DIPPER AT 9 P.M. OCTOBER 1ST. THE DIPPER AT 9 P.M. OCTOBER 15TH. THE DIPPER AT 9 P.M. NOVEMBER 1ST. THE DIPPER AT 9 P.M. NOVEMBER 15TH. THE DIPPER AT 9 P.M. DECEMBER 1ST. THE DIPPER AT 9 P.M. DECEMBER 15TH. THE DIPPER AT 9 P.M. JANUARY 1ST. THE DIPPER AT 9 P.M. JANUARY 15TH. THE DIPPER AT 9 P.M. FEBRUARY 1ST. THE DIPPER AT 9 P.M. FEBRUARY 15TH. THE DIPPER AT 9 P.M. MARCH 1ST. THE DIPPER AT 9 P.M. MARCH 15TH. THE DIPPER AT 9 P.M. APRIL 1ST. THE DIPPER AT 9 P.M. APRIL 15TH. THE DIPPER AT 9 P.M. MAY 1ST. THE DIPPER AT 9 P.M. MAY 15TH. THE DIPPER AT 9 P.M. JUNE 1ST. THE DIPPER AT 9 P.M. JUNE 15TH. THE DIPPER AT 9 P.M. JULY 1ST. THE DIPPER AT 9 P.M. JULY 15TH. THE DIPPER AT 9 P.M. AUGUST 1ST.

THE Constellations are divided into three belts or zones: viz., The Northern, which lie between the Zodiac and the north pole of the heavens; the Southern, which lie between the zodiac and the south pole of the heavens; and the Zodiacal, which lie about 8° both north and south of the ecliptic. People living in the latitude of New York may see the constellations in the southern hemisphere, except those between the south pole of the heavens and south declination 45.

SOUTHERN HEMISPHERE
MAGNITUDES OF THE STARS.
All the stars visible to the naked eye are divided into six classes of brightness called magnitudes, a very brilliant one being of the first magnitude, and the faintest visible, of the sixth magnitude. The whole number of stars visible to the naked eye is about 6000—about 3000 at any one time, as only half of the sky is seen at once. With powerful telescopes at least 20 000 000 are visible down to the fourteenth magnitude. On the maps the magnitudes are represented thus: 1st mag. ✳; 2nd mag. ✳; 3rd mag. ✳, 4th mag. ✳; 5th mag. ✳; 6th mag. ·.
PLANETS.
The planets Venus, Mars, Jupiter and Saturn will at times appear among the zodiacal constellations, but are easily distinguished from the stars; Venus and Jupiter by their superior brightness, and Saturn and Mars by the steadiness with which they shine.
MILKY WAY.
The Milky Way is a belt of pale light winding among the stars and spanning the sky. It is composed of stars so faint and near together that the eye perceives only a continuous glimmer. It is not represented on the map.
REMARKABLE STAR GROUPS.
The beautiful group of the Pleiades, in the constellation Taurus, is the most familiar. The 6 or 7 stars visible to the naked eye become 60 or 70 when viewed through the telescope. The Hyades, in Taurus, and Præsepe or "Bee-hive," in Cancer, are other groups.
HOW TO FIND THE STARS ON THE MAPS OR IN THE SKY.
To find any one of the stars given in the list at the bottom of this page, find its constellation as directed on the opposite page, when it can be located at once. To find any one of them in the sky, find its constellation as already directed, when the star will be recognized by the degree of its brightness. Remember that in looking for a constellation as the sky the map must be considered as held between the north star and the eye.
BRIGHTEST STARS.
The twenty brightest or first magnitude stars in order of brightness are as follows:—Sirius, in Canis Major; Canopus, in Argus; Alpha, in Centaurus; Arcturus, in Boötes; Rigel, in Orion; Capella, in Auriga; Vega, in Lyra; Procyon, in Canis Minor; Betelgeux, in Orion; Achernar, in Eridanus; Altair, in Aquila; Aldebaran, in Taurus; Beta, in Centaurus; Alpha, in Crux; Antares, in Scorpio; Altair, in Aquila; Spica, in Virgo; Fomalhaut, in Piscis Australis; Beta, in Crux; Pollux, in Gemini; Regulus, in Leo.
DISTANCES OF THE STARS.
Alpha Centaurus, a first magnitude star of the southern hemisphere, and one of the nearest to the earth, is, in round numbers, 20 000 000 000 miles from us—requiring light 3½ years to traverse. Second magnitude stars require 28 years for light to pass from them to the earth; sixth magnitude stars require 120 years.
DIRECTION OF DIURNAL MOTION
CELESTIAL EQUATOR OR EQUINOCTIAL
ECLIPTIC
SOUTH DECLINATION
SOUTH POLE OF THE HEAVENS
SCORPIUS
SAGITTARIUS
CAPRICORNUS
AQUARIUS
PISCIS AUSTRALIS
GRUS
PAVO
INDUS
TUCANA
TELESCOPIUM
MICROSCOPIUM
OCTANS
APPARATUS
TRIANGULUM AUSTRALE
NORMA
CIRCINUS
LUPUS
CENTAURUS
CRUX
MUSCA AUSTRALIS
CHAMÆLEON
VOLANS
DORADO
ARA
ARGO
NAVIS
CARINA
PUPPIS
VELA
HYDRA
CRATER
CORVUS
LIBRA
VIRGO
ANTLIA
SEXTANS
LEO MINOR
LYNX
CANCER
HYDRUS
CAMELOPARDALIS
CARINA
MONOCEROS
CANIS MAJOR
SIRIUS
ORION
LEPUS
COLUMBA
ERIDANUS
CETUS
FORNAX
CHEMICA
SCULPTOR
PHŒNICIS
TUCANA
HOROLOGIUM
RETICULUS
DORADO
PICTOR
EQUULEUS
CAPRICORNUS
DELPHINUS
SAGITTA
AQUILA
ANTINOÜS
SCUTUM
SERPENS
OPHIUCHUS
HERCULES
CORONA BOREALIS
BOÖTES
CANES VENATICI
COMA BERENICES
URSA MAJOR
DRACO
CEPHEUS
CASSIOPEIA
PERSEUS
ANDROMEDA
PEGASUS
TRIANGULUM
ARIES
CETUS
AURIGA
LYNX
GEMINI
TAURUS
PERSEUS
CAMELOPARDALIS
CASSIOPEIA
CEPHEUS
DRACO
URSA MINOR
POLARIS
DIRECTION OF DIURNAL MOTION

NAMES OF ONE HUNDRED FUNDAMENTAL STARS—INCLUDING THOSE OF THE FIRST, SECOND AND THIRD MAGNITUDES.

All the stars of each constellation are arranged in the order of brightness, and they have attached to them in this order the letters of the Greek alphabet, using after the letters the genitive of the Latin name of the constellation; thus ALPHA (α) LYRÆ, *denotes the brightest star in the constellation Lyra;—*BETA (β) URSÆ MINORIS, *the next to the brightest star in Ursa Minor. After the Greek alphabet is exhausted, the Roman alphabet, then numbers, are used in the same way.*

MODERN NAME	ANCIENT NAME	MODERN NAME	ANCIENT NAME	MODERN NAME	ANCIENT NAME	MODERN NAME	ANCIENT NAME
α ANDROMEDÆ	ALPHERATZ	β CANIS MAJORIS	MIRZAM	α CYGNI	ARIDED, DENEB, ADIGE	α LEPORIS	ARNEB
β "	MIRACH, MIZAR	ε "	ADARA	β "	ALBIREO	α LIBRÆ	ZUBEN EL GENUBI
γ "	ALMACH	α CANIS MINORIS	PROCYON	α ORACONIS	THUBAN	β "	ZUBEN EL CHAMALIA
α AQUARII	SADALMELIK	β "	GOMEISA	β "	ALWAID	γ "	ZUBEN HAKRABI
β "	SADALSUUD	α CAPRICORNI	SECUNDA GIEDI	γ "	ETANIN	α LYRÆ	VEGA
ε "	SKAT	δ "	DENEB ALGIEDI	α ERIDANI	ACHERNAR	β "	SHELIAK
α AQUILÆ	ALTAIR	α CASSIOPEIÆ	SCHEDAR	β "	CURSA	γ "	SULAPHAT
β "	ALSHAIN	β "	CHAPH	γ "	ZAURAC	α OPHIUCHI	RAS ALHAGUE
γ "	TARAZED	α CEPHEI	ALDERAMIN	α GEMINORUM	CASTOR	β "	CEBALRAI
α ARIETIS	HAMAL	β "	ALFIRK	β "	POLLUX	α ORIONIS	BETELGEUX
β "	SHERATAN	γ "	ERRAI	β "	ALHENA	β "	RIGEL
γ "	MESARTHIM	α CETI	MENKAR	δ "	WASAT	γ "	BELLATRIX
α AURIGÆ	CAPELLA	β "	DIPHDA	ε "	NEBSUTA	δ "	MINTAKA
β "	MENKALINAN	ζ "	BATEN KAITOS	α HERCULIS	RAS ALGETHI	ε "	ALNILAM
α BOÖTIS	ARCTURUS	ο "	MIRA	β "	KORNEFOROS	α PEGASI	MARKAB
β "	NEKKAR	α COLUMBÆ	PHACT	α HYDRÆ	ALPHARD, COR HYDRÆ	β "	SCHEAT
ε "	IZAR	α CORONÆ BOREALE	ALPHECCA	α LEONIS	REGULUS, COR LEONIS	γ "	ALGENIB
η "	MUPRHID	α CORVI	ALCHIBA	β "	DENEBOLA, DENEB	ε "	ENIF
2 CANUM VENATICORUM	COR CAROLI	ε "	ALGORES	γ "	ALGEIBA	ζ "	MOMAN
α CANIS MAJORIS	SIRIUS	α CRATERIS	ALKES	δ "	ZOSMA	α PERSEI	MIRFAK

MODERN NAME	ANCIENT NAME	MODERN NAME	ANCIENT NAME	MODERN NAME	ANCIENT NAME
β PERSEI	ALGOL	α PISCIS AUSTRALE	FOMALHAUT	α SAGITTARII	KAUS AUSTRALIS
ε SAGITTARII	KAUS MERIDIONALIS	α SCORPIONIS	ANTARES	α SERPENTIS	UNUKALHAI
α TAURI	ALDEBORAN	β "	"	γ "	"
η "	ALCYONE (PLEIAD)	α URSÆ MAJORIS	DUBHE	β "	MERAK
γ "	PHECDA	δ "	MEGREZ	ε "	ALIOTH
ζ "	MIZAR	η "	ALKAID, BENETNASCH	α URSÆ MINORIS	POLARIS
ι "	TALITHA	α VIRGINIS	SPICA, ALMUREDIN	β "	KOCHAB
β "	ZAVIJAVA	ε "	VINDEMIATRIX		

CORRECTION.—Under "Distances of the Stars" *a Centaurus* should be 20,000,000,000,000 miles.

ABBREVIATIONS

&

A. or a. Adjective, Acre, After Noon, Alto, Accepted.
a. or @. to or at.
AL. First class or rate.
A. or Ans. Answer.
A.A.G. Assistant Adjutant General.
A.A.S., American Academy of Sciences.
A.B. Bachelor of Arts, Able bodied seamen.
Abb. Abbot, Abbess.
Abbr. Abbreviated, Abbreviation.
A.B.C.F.M. American Board of Commissioners for Foreign Missions.
Abl. Ablative.
Abp. Archbishop.
Abr. Abridgement.
A.B.S. American Bible Society.
Act. Active.
A.D. In the year of our Lord, a.d., After date.
Ad. or Adv., Adverb, Advertisement.
A.D.C. Aide-de-Camp.
Ad. inf. Without limit.
Ad. int. In the mean while.
Adj. Adjective.
Adjt. Adjutant.
Adjt.-Gen. Adjutant General.
Ad. lib. At pleasure.
Adm. Admiral, Admiralty.
Admr. Administrator, Administration.
Admx. Administratrix.
Adv. Adverb, Advent, Advocate.
Æ. or Æt. Of age, Aged.
Af. or Afr. Africa.
A.F.A.M. Ancient Free and Accepted Masons.
A.G. Adjutant General.
Ag. Silver.
Agt. Agent.
A.H. In the year of the Hegira, or flight of Mohammed.
A.H.M.S. American Home Missionary Society.
Al., Aluminium.
Ala. Alabama.
Alas. Alaska Territory.
Alex. Alexander.
Alf. Alfred.
Alt. Altitude.
A.M. Master of Arts, Before noon, In the year of the world.
Am. or Amer. America, American, Americana.
Amt. Amount.
An. Answer.
Anal. Analysis.
Anat. Anatomy.
Anc. Ancient.
And. Andrew.
Ang.Sax. Anglo Saxon.
Anno. Annotate.
Anon. Anonymous.
Ans. Answer.
Ant. or Antiq. Antiquity.
A.O.F. Ancient Order of Foresters.
A.O.H. Ancient Order of Hibernians.
A.O.U.W. Ancient Order of United Workmen.
Ap. April, Apostle,
Apo. Apogee.
Apoc. Apocrypha, Apocalypse.
Apen. Apennine.
Apr. April.
Aq. Water.
A.Q.M. Assistant Quarter Master.
A.Q.M.G. Assistant Quarter Master General.
Arab. Arabic, Arabian.
Arith. Arithmetic.
Ariz. Arizona.
Ark. Arkansas.
Arn. Arnold.
Arr. Arrived.
Art. Article, Artemus.
Arth. Arthur.
A.S. Academy of Sciences, Assistant Surgeon.
As. Arsenic, Astronomy.
Asst. Assistant.
Astrol. Astrology.
Astron. Astronomy.
Ats. At suit of.
Atty. Attorney.
Atty. Gen. Attorney General.
At.Wt. Atomic Weight.
Au. Gold.
A.U.C. In the year from the building of the city (Rome).
Aug. August.
Aur. Gold.
Auth.Ver. or A.V. Authorized version (Bible).
Av. Average, Avenue.
Ave. Avenue.
Avoir. Avoirdupois.

B

B. Base or Bass, Baron, Bay, Book.
b. Born, Book.
B.A. Bachelor of Arts, British America.
Ba. Barium.
Bal. Balance.
Bar. Barrel, Barley corn.
Bart. or Bt. Baronet.
B.B. Bill Book.
Bbl. Barrel, Barrels.
B.C. Before Christ.
B.C.L. Bachelor of Civil Law.
B.D. Bachelor of Divinity.
Bd. Bond, Bound.
Bds. Boards.
Bdls. Bundles.
Be. Glucinium.
Benj. Benjamin.
Bev. Beverly.
Bgs. Bags.
Bi. Bismuth.
B.I. British India.
Bib. Bible, Biblical.
Biog. Biography.
Bis. Bismuth, Bissextile.
Bk. Bank, Book.
B.L. Bachelor of Laws.
B/L Bill of Lading.
Bl. Barrel, Barrels.
Bls. Bales.
B.Lit. Bachelor of Letters.
B.LL. Bachelor of Laws.
B.M. Bachelor of Medicine.
B.Mus. Bachelor of Music.
B.o. Buyer's option.
Bohem. Bohemian.
Bor. Borough, Boron.
Bot. Bought, Botany, Botanist.
Boul. Boulevard.
Bp. Bishop.
B/P Bill of Parcels.
B.Pay. Bills Payable.
Bque. Barque.
Br. Brother, Britain, British, Brig, Bromine.
Braz. Brazil.
B.Rec. Bills Receivable.
Brig. Brigade, Brigadier.
Brig.-Gen. Brigadier General.
Brit. British, Britain.
Bro. Brother.
Bros. Brothers.
B/S Bill of Sale.
B.S. Bachelor of Science.
Bu. Bushel.
B.V. Blessed Virgin, Farewell.
Bxs. Boxes.

C

C. Carbon, Hundred, Cent, Centigrade thermometer, Centime, Gallon.
c. Cents, Also ¢.
Ca. Centare, Calcium.
Cal. California, Calcium, Calendar, Calends.
Calif. California.
Can. Canada, Canon.
Cant. Canticles.
Cap. Capital, Capital, Capital Letters.
Caps. Capitals.
Capt. Captain.
Car. Carat.
Card. Cardinal.
Cash. Cashier.
Cat. Catalogue.
Cath. Catharine, Catholic, Cathedral.
C.B. Common Bench, Cape Breton.
C.C. Circuit Court, County Clerk, Chancery Cases, County Commissioner.
C.C.P. Court of Common Pleas.
Cd. Cadmium.
Ce. Cerium.
C.E. Canada East, Civil Engineer.
Cel. or Celt. Celtic.
Cen. Century, Centime.
Cent. A hundred.
Cf. Compare.
Cg. Centigram.
C.G.H. Cape of Good Hope.
C.H. Court House, Custom House.
Ch. Church, Chapter, Chancery.
Chal. Chaldron, Chaldee.
Chanc. Chancery.
Chap. Chapter, Chaplain.
Char. Charter.
Chas. Charles.
Chat. Chattel.
Chem. Chemistry.
Chf. Chief.
Chin. Chinese.
Chlo. Chloroform.
Chron. Chronicles.
Cit. Citizen, Citation.
Civ. Civil.
C.J. Chief Justice.
Cks. Casks.
Cl. Clergyman, Clerk, Chlorine, Centilitre.
Cld. Cleared.
Clk. Clerk.
C.M. Common Metre.
Cm. Centimetre.
Co. County, Company, Cobalt.
Coad. Coadjutor.
Coch. or Cochl. A teaspoonful, A spoonful.
C.O.D. Cash (Collect) on Delivery.
Col. Colonel, Colossians, Colorado, Column, Colon, Colonial, Columbia.
Coll. Collector, Colleagues, College, Collection.
Colo. Colorado.
Com. Commerce, Committee, Commissioner, Commentary, Commodore, Common.
Comdg. Commanding.
Comdt. Commandant.
Comm. Commentary.
Comp. Compare, Compound, Comparative.
Com. Ver. Common Version.
Con. Against, In opposition, Constitution, Contract, Concordance.
Conch. Conchology.
Cong. Congress, Congregation, Congregationalist.
Conj. Conjunction.
Conn. or Ct. Connecticut.
Const. Constable, Constitution.
Contr. Contraction.
Conv. Convent.
Cop. Copper, Coptic.
Cor. Correspondent, Correction, Corner, Corinthians.
Cor. Mem. Corresponding Member.
Corol. Corollary.
Cor. Sec. Corresponding Secretary.
Cos. Cosine.
C.P. Court of Probate, Common pleas.
C.P.S. Clerk of the Privy Council, Keeper of the Privy Seal.
Cr. Creditor, Credit, Crown, Cromium.
Cres. Cresendo.
Crim. Con. Criminal Conversation, Adultery.
Cs. Caesium.
C.S. Court of Sessions, Keeper of the Seal.
C.S.A. Confederate States of America.
C.S.O. Chief Signal Officer.
Ct. Cent, A hundred, Connecticut.
Cts. Cents.
Cu. Copper.
Cur. or Curt. Current, This Month.
Cwt. Hundred weight.
Cyc. Cyclopedia.

D

D. Day, Daughter, Deputy, Degree, Didymium, Penny or Pence, Five hundred.
Dan. Daniel, Danish.
Dat. Dative.
D.C. District of Columbia, (In music) From the beginning.
D.C.L. Doctor of Civil or Canon Law.
d.d. Days after date.
D.D.S. Doctor of Dental Surgery.
Dea. Deacon.
Dec. December, Declaration, Declension.
Def. Definition, Defendant.
Deg. Degree.
Del. Delaware, Delegate.
Dem. Democrat, Democratic.
Den. Denmark.
Dent. Dentist.
Dep. Deputy, Department.
Dept. Department, Deponent.
Deriv. Derivative, Derivation.
Deut. Deuteronomy.
Dft. Draft, Defendant.
dg. Decigram.
Dg. Dekagram.
D.H. Dead Head.
Di. Didymium.
Diam. Diameter.
Dict. Dictionary, Dictator.
Dim. Diminutive, Diminution.
Dioc. Diocese, Diocesan.
Disct. Discount.
Dist. Atty. District Attorney.
Div. Divide, Division, Dividend, Divisor.
Dl. Dekaliter.
dl. Deciliter.
D.M. Doctor of Music.
dm. Decimeter.
D.M.D. Doctor Dental Medicine.
Do. The same.
Dol. Dols, $ Dollars.
Dom. Dominion.
Doz. Dozen.
D.P. Doctor of Philosophy.
Dpt. Deponent.
Dr. Debtor, Doctor, Dram.
d/s. Days' Sight.
D.S. From the sign.
D.Sc. Doctor of Science.
D.V. God willing.
Dwt. Pennyweight.

E

E. East, Earl, Erbium.
Ea. Each.
Eb. Erbium.
Eben. Ebenezer.
E.by S. East by South.
E.C. Established Church.
Eccl. Ecclesiastes, Ecclesiastical.
Ed. Editor, Edition.
Edm. Edmund.
Edw. Edwin, Edward.
E. E. Errors excepted, Ells English.
E.Fl. Ells Flemish.
E.Fr. Ells French.
Eg. For example.
E.I. East India or Indies.
Elec. Electricity.
Eliz. Elizabeth.
E. Lon. East Longitude.
Em. Emma, Emily, Emanuel.
Emp. Emperor, Empress, Empire.
Ency. or Encyc. Encyclopedia.
E.N.E. East-North-East.
Eng. England, English.
Engin. Engineering.
Ens. Ensign.
Env. Ext. Envoy Extraordinary
Ep. Epistle.
Eph. Ephesians, Ephraim.
Epis. Episcopal.
Eq. Equal, Equivalent, Equity.
E. S. Ells Scotch.
Esd. Esdras.
E.S.E. East-South-East.
Esp. Especially.
Esq. or Esqr. Esquire.
Est. Estate, Estimate.
Estab. Established, Establishment.
Esth. Esther.
et al. And others.
Etc. or &c. And others, And so forth.
et seq. And what follows, And the following.
Etym. Etymology.
Evang. Evangelical, Evangelist.
Ex. Example, Exception, Exodus.
Exc. Excellency, Exception.
Exch. Exchequer, Exchange.
Exec. Executor.
Exerc. Executrix.
Ex. q. For example.
Exod. Exodus.
Exp. Export, Exporter.
Ez. Ezra.
Ezek. Ezekiel.

F

F. France, Folio, Fellow, Fluorine, Friday, Florin, Fahrenheit, Feminine, Farthing, Foot.
F. A. A. Free of all Average.
Fahr. Fahrenheit.
Far. Farrier, Farthing.
F. A.S. Fellow of the Society of Arts, Fellow of the Antiquarian Society.
F.C. Free Church (Scotland).
Fcap. or Fop. Foolscap.
F.D. Defender of the Faith.
Fe. Iron.
F. E. Flemish Ells.
Feb. February.
Fem. Feminine.
Feud. Feudal.
ff. Following.
Fi. fa. Cause it to be done.
Fig. Figure, Figurative.
Fin. Financial.
Fir. Firkin.
Fl. Flemish, Flourished, Florin, Flora.
Fla. Florida.
Fl. E. Flemish Ells.
Flor. Florence.
F. M. Field-marshal.
Fo. or Fol. Folio.
F.O. Field-officer.
F.O.B. Free on Board.
For. Foreign.
Fqrt. Fortification.
Fr. France, Francs, From, Frank, French.
F.R.C.S. Fellow of the Royal College of Surgeons.

FROM PEN DRY MADE BY THE AUTHOR

ABBREVIATIONS CONTINUED

Fr. E. French Ells.
Fred. Frederick.
F. R. G. S. Fellow of the Royal Geographical Society.
Fri. Friday.
F. R. S. Fellow of the Royal Society.
F. R. S. E. Fellow of the Royal Society, Edinburg.
F. R. S. L. Fellow of the Royal Society of Literature, Fellow of the Royal Society, London.
F. S. A. Fellow of the Society of Arts.
Ft. Foot, Feet, Fort, Fortification.
Fth. Fathom.
Fur. Furlong.
Fut. Future.

G

G. Genitive, Guide, Gulf, Gnomon, Guinea.
g. Gram.
G. A. General Assembly.
Ga. Georgia.
Gal. Gallatians, Gallon, Galen, Gallons.
Gael. Gaelic.
Galv. Galvanic, Galvanism.
G. A. R. Grand Army of the Republic.
G. B. Great Britain.
G. B. & I. Great Britain and Ireland.
G. C. Grand Chapter, Grand Chancellor, Grand Conductor.
G. C. B. Grand Cross of the Bath.
Gen. General, Genesis, Genitive, Generally.
Gent. Gentleman.
Geo. George.
Geog. Geography, Geographer.
Geol. Geology, Geologist, Geological.
Geom. Geometry, Geometer.
Ger. Gerund, German, Germany.
Gl. Gills.
G. M. Grand Master.
Goth. Gothic.
Gov. Governor.
Gov. Gen. Governor General.
G. P. O. General Post Office.
Gr. Greek, Gross, Grains, Grain, Great.
Gram. Grammar.
Gro. Gross.
G. T. Good Templars, Grand Tyler.
Gun. Gunnery.

H

H. Hydrogen, Hour, Height, High, Harbor, Husband.
H. or hr. Hour, Hours.
Ha. Hektare.
Hab. Habakkuk.
Hag. Haggai.
H. B. C. Hudson Bay Company.
H. B. M. His (or Her) Britannic Majesty.
H. C. M. His (or Her) Catholic Majesty.
Hdkf. Handkerchief.
Heb. or Hebr. Hebrew, Hebrews.
Hectol. Hectoliter.
Her. Heraldry.
H. F. Holy Father.
Hf. bd. Half-bound.
Hf. cf. Half calf.
Hf. chts. Half Chests.
Hg. Mercury, Hektogram.
H. G. Horse Guards.
H. H. His Holiness (Pope), His (or Her) Highness.
Hhd. Hogshead—s.
H. I. H. His (or Her) Imperial Highness.
Hil. Hilary.
Hind. Hindu, Hindustan, Hindustanee.
Hist. History, Historical.
Hl. Hectolitre.
H. M. His (or Her) Majesty.
H. M. S. His (or Her) Majesty's Steamer, Ship or Service.
Hon. Honorable.
Hor. Horace, Horizon.
Hort. Horticulture.
Hos. Hosea.
H. P. Horse Power, Half-pay, High Priest.
H. R. House of Representatives.
H. R. E. Holy Roman Emperor, or Empire.
H. R. H. His (or Her) Royal Highness.
H. S. H. His (or Her) Serene Highness.
Hun. or Hung. Hungary, Hungarian.
Hund. Hundred—s.
Hy. Art. Heavy Artillery.
Hypoth. Hypothesis, Hypothetical.
Hy. Mercury.

I

i. Island, Iodine.
Ia. Iowa.
Ib. or Ibid. In the same place.
Ice. or Icel. Iceland, Icelandic.
Id. Idaho, Ides, The same.
i. e. That is.
I. H. S. Jesus the Savior of Men.
Ill. Illinois.
Imp. Imperial, Imperative, Imperfect, Emperor.
Impers. Impersonal.
In. Inch, Inches.
Incog. Unknown.
Ind. India, Indiana, Indian, Index, Indicative.
Indef. Indefinite.
Ind. Meth. Independent Methodists.
Indo. Eur. Indo-European.
Ind. T. Indian Territory.
Inf. Beneath or below, Infinitive, Infantry.
I. N. R. I. Jesus of Nazareth, King of the Jews.
Ins. Inspector, Insurance.
Inst. Instant—the present month, Institute, Institution.
Int. Interest, Interpreter.
Interj. Interjection.
Intr. Introduction.
Intrans. Intransitive.
In trans. In the passage.
Introd. Introduction.
Inv. Invoice.
Io. Iowa.
I. O. B. B. Independent Order of B'nai B'rith.
I. O. U. I owe you (an acknowledgment for money).
Ipecac. Ipecacuanha.
I. q. The same as.
Ir. Iridium, Irish, Ireland.
Ire. Ireland.
Irreg. Irregular.
Is. or Isa. Isaiah.
Isl. Island.
I. S. M. Jesus the Savior of the world.
It. or Ital. Italy, Italian.
I. T. Indian Territory, Inner Temple.

J

J. Judge, Justice.
JJ. Justices.
J/A. Joint account.
J. A. Judge Advocate.
Jac. Jacob.
Jam. Jamaica.
Jan. January.
Jas. James.
J. C. Jesus Christ, Justice Clerk, Julius Caesar.
J. C. D. Doctor of Civil Law.
J. D. Doctor of Law, Junior Deacon.
Je. June.
Jer. Jeremiah, Jersey, Jerusalem, Jericho.
J. G. W. Junior Grand Warden.
Jno. John.
Jnt. Joint.
Jnt. Stk. Joint Stock.
Jnt. Stk. Co. Joint Stock Company.
Jo. Joel.
Jona. Jonathan.
Jos. Joseph.
Josh. Joshua.
J. P. Justice of the Peace.
Jpr. Jasper.
J. Prob. Judge of Probate.
Jr. Junior.
J. U. D. Doctor of Canon and Civil Law.
Jud. Judith.
Judg. Judges.
Jul. July.
Jun. June, Junior.
Jur. Jurist, Jurisprudence.
Just. Justinian.

K

K. King, Knight, Kilogram, Potassium.
Kan. Kansas.
K. B. King's Bench, Knight of the Bath.
K. C. B. Knight Commander of the Bath.
Ken. or Ky. Kentucky.
Kg. Kilogram.
Ki. Kings.
Kil. Kilderkin.
Kilo. Kilogram.
Kl. Kiloliter.
Km. Kilometer, Kingdom.
Knt. Knight.
K. of H. Knights of Honor.
K. of P. Knights of Pythias.
Kt. Knight.
Ky. Kentucky.

L

L. Lady, Lord, Lithium, Low, Lake, League, Line.
L., £, or l. Pound Sterling.
L., lb., or lb. A Pound in Weight.
La. Lanthanum, Louisiana.
Lam. Lamentations.
Lat. Latin, Latitude.
Lb. or lb. A pound.
l. c. Lowercase (Printing), Place before cited.
L/C. Letter of Credit.
L. C. Lower Canada, Lord Chancellor.
Ld. Lord.
L. D. Lady Day, Light Dragoons.
Ldp. or Lp. Lordship.
Lea. League.
Led. Ledger.
Leg. or Legis. Legislature.
Lev. Leviticus.
Lex. Lexicon, Lexicographer, Lexington.
L. I. Long Island, Light Infantry.
Li. Lithium.
Lib. Book, Library, Librarian.
Lieut. or Lt. Lieutenant.
Liq. Liquor.
Lit. Literature, Literary, Literally.
Lith. Lithuanian.
Liv. Livre.
L. L. Law Latin, Late Latin.
L. Lat. Low Latin, Low Latin.
LL. B. Bachelor of Laws.
LL. D. Doctor of Laws.
L. L. L. Lord Lieutenant of Ireland.
Lon. Longitude.
Lon. or Lond. London.
Long. Longitude.
Loq. Speaks.
Lp. or Ldp. Lordship.
L. S. Left Side (Place of the Seal).
L. S. D. Pounds, Shillings, Pence.
Lt. or Lieut. Lieutenant.
Lv. Livre—s.
LXX. The Septuagint.

M

M. Marquis, Monday, Meridian, Middle, Morning, Monsieur, Meridian, Noon.
M. or m. Married, Masculine, Meter, Minute, Moon, Month, Mills, Mile, A Thousand.
M. 10,000.
M. A. Master of Arts, Military Academy.
Mac. or Macc. Maccabees.
Maced. Macedonian.
Mach. Machinist, Machinery.
Mad. or Mme. Madam.
Mag. Magazine.
Maj. Major.
Maj. Gen. Major General.
Mal. Malachai.
Man. Manual, Manège.
Manuf. Manufactory, Manufacture, Manufacturer.
Mar. March, Maritime.
March. Marchioness.
Marg. Margin.
Marq. Marquis.
Masc. Masculine.
Mass. Massachusetts.
Math. Mathematics, Mathematician.
Matt. Matthew.
M. B. Bachelor of Medicine.
M. C. Member of Congress, Master of Ceremonies, Master Commandant.
M/C. Metallic Currency.
Mch. March.
M. D. Doctor of Medicine.
Md. Maryland.
M/d. Month's date.
Mdlle. Mademoiselle.
M. E. Methodist Episcopal.
M. E. S. Methodist Episcopal South.
Me. Maine.
Meas. Measure.
Mech. Mechanics, Mechanical.
Med. Medicine.
Mem. Memorandum, Memory, Remember.
Merc. Mercury.
Mer. Meridian.
Messrs. or MM. Gentlemen or Sirs.
Met. Metaphysics, Metaphor, Metropolitan.
Meth. Methodist.
Mex. or Mexic. Mexico, Mexican.
Mg. Magnesium, Myriogram.
mg. Milligram.
M. G. Major General.
Mgr. Monsignor.
M. H. S. Massachusetts Historical Society, Member of the Historical Society.
Mi. Mill, Mills.
Mic. Micah.
Mich. Michigan.
Mid. Midshipman, Middle.
Mil. Military.
Min. Minute—s.
Minn. Minnesota.
Min. Plen. Minister Plenipotentiary.
Miss. Mississippi.
Ml. Millilitre.
Mlle. Mademoiselle.
mm. Millimetre.
MM. Their Majesties, Gentlemen, Two thousand.
Mme. Madame.
Mmes. Madames.
Mn. Manganese.
Mo. Missouri, Month, Molybdenum.
Mod. Modern.
Mon. Monday, Monastery.
Mons. Monsieur, Sir.
Monsig. Monsignor.
Mont. Montana.
Mos. Months.
M. P. Member of Parliament, Member of Police.
M. P. C. Member of Parliament in Canada.
M. P. P. Member of the Provincial Parliament.
Mr. Master, Mister.
Mrs. Mistress or Missis.
M/S. Month's sight.
MS. Manuscript, Mates of Science.
MSS. Manuscripts.
Mt. Mount, Mountain.
Mts. Mountains.
Mus. Music, Museum.
Mus. B. Bachelor of Music.
Mus. D. Doctor of Music.
M. W. Most Worthy.
M. W. G. M. Most Worthy, or Worshipful, Grand Master.
Myth. Mythology.

N

N. North, Number, Neuter, Note, Name, New, Noun, Nitrogen.
N. A. North America.
N. A. S. National Academy of Sciences.
Na. Sodium.
Nah. Nahum.
Nat. Natural, National.
Nat. Hist. Natural History.
Nath. Nathaniel.
Naut. Nautical.
Nav. Navy, Navigator.
Nav. Con. Navy Construction.
N. B. Take notice or note well, New Brunswick.
N. C. North Carolina.
N. D. No Date, North Dakota.
N. E. New England, North East.
Neb. Nebraska.
Neg. Negative.
Neh. Nehemiah.
Nem. Con. No one contradicting, Unanimously.
Nem. Diss. No one Dissenting, Unanimously.
Neut. Neuter.
Nev. Nevada.
New M. New Mexico.
New Test. New Testament.
N. F. Newfoundland.
N. G. New Granada, Noble Grand.
N. H. New Hampshire.
Ni. Nickel.
N. J. New Jersey.
N. Lat. North Latitude.
N. Mex. New Mexico.
N. N. E. North-Northeast.
N. N. W. North-Northwest.
N. O. New Orleans.
No. Number.
Nol. Pros. Unwilling to prosecute.
Nom. Nominative.
Non. Con. Not content, Dissenting.
Non. Pros. He does not prosecute.
Non. seq. It does not follow.
Norw. Norway, Norwegian.
Nos. Numbers.
Nov. November.
N. P. Notary Public.
N. S. New Style, Nova Scotia.
N. T. New Testament, New Translation.
N. u. Name unknown.
Num. or Numb. Number.
N. W. Northwestern.
N. W. T. Northwest Territory.
N. Y. New York.
N. Z. New Zealand.

O

O. Ohio, Old, Oxygen.
%. Per cent.
Ob. Died.
Obad. Obadiah.
Obj. Objective, Objection.
Obs. Obsolete, Observatory, Observation.
Obt. or Obdt. Obedient.
Oct. October.
O. F. Odd Fellow—s.
O. K. All Correct.
Ol. Oil.
Old Test. or O. T. Old Testament.
Olym. Olympiad.
Ont. Ontario.
Opt. Optics.
Or. or Ore. Oregon.
Ord. Ordinance, Ordinary.
Orig. Original, Originally.
Ornith. Ornithology.
O. S. Old Style.
Os. Osmium.
O. S. A. Augustinians.
O. S. B. Benedictines.
O. S. F. Franciscans.
O. T. Old Testament.
Oxon. Oxford.

ABBREVIATIONS.

O. or o. Ounce -s.

℗

P. Page, Part, Participle, Penny. Phosphorus, Pint, Pope.
Pa. Pennsylvania.
P. A. Post Adjunct.
P.a. Participial adjective.
Par. or ¶ Paragraph.
Par. or ∥ Parallel.
Parl. Parliament.
Part. Participle.
Pass. Passive, Passionist.
Past. Pastor.
Payt. Payment.
Pb. Lead.
P. B. Bachelor of Philosophy.
P. D. Doctor of Philosophy.
Pd. Paid, Palladium.
Pe. Pelopium.
P.E. Protestant Episcopal, Presiding Elder.
P.E.I. Prince Edward Island.
Penn. Pennsylvania.
Pent. Pentecost.
Per. or Pers. Persia.
Per , pr. or ℔, By the, as per lb., per oz., etc.
Per an. By the year.
Per cent. or pr. ct. By the hundred.
Perf. Perfect.
Peri. Perigee.
Pers. Person.
Pet. Peter.
P. G. Past Grand.
Pg. Portugal, Portuguese.
Phar. Pharmacy.
Ph. B. Bachelor of Philosophy.
Ph. D. Doctor of Philosophy.
Phil. Philip, Philemon, Philippians, Philosophy.
Phila. Philadelphia.
Philom. Lover of Learning.
Philos. Philosophy.
Phonog. Phonography.
Photog. Photography.
Phren. Phrenology.
Phys. Physics, Physician.
Pinx. or pxt. He (or She) painted it.
Pk. Peck.
Pkgs. Packages.
Pl. Place, Plate. '
P.L. Poet Laureate.
Pl. or Plur. Plural.
Plff. Plaintiff.
Plup. or Plupf. Pluperfect.
Plur. Plural.
Pm. Premium.
P. M. Afternoon, Pay Master, Post Master, Past Midshipman.
P.M.G. Post Master General, Pay Master General.
P'N. Promissory Note.
P.O. Post Office.
P.O.D. Post Office Department, Pay on delivery.
Pol. Polish.
P. O. O. Post Office Order.
Pop. Population.
Port. Portugal, Portuguese.
Pos. or Poss. Possessive.
Pp. Pages.
P.P. Please pay.
P.P.C. To take leave.
Pph. Pamphlet.
Pr., Per, or ℔, By the, as Per bushel.

P. R. Porto Rico, Prize Ring.
Preb. Prebend, Prebendary.
Pref. Preface, Prefix.
Prep. Preposition.
Pres. President.
Presb. Presbyterian, Presbytery.
Pret. Preterit.
Prim. Primate, Primitive.
Prin. Principal, Principles.
Prob. Problem.
Prof. Professor.
Pron. Pronoun.
Pro. tem. For the time.
Prov. Proverbs, Provost, Province.
Prox. Next, Next month.
Prus. Prussia, Prussian.
P. S. Postscript, Permanent Secretary, Privy Seal.
Ps. Psalms, Prices.
Pt. Pint, Port, Payment, Paint, Platinum.
Pub. Publisher, Public.
Pub. Doc. Public Documents.
Pulv. Powder.
Pun. Puncheon.
Pwt. Pennyweight -s.
Pxt. He (or She) said.

Q

Q. Question, Quintus.
Q. or Qu. Queen, Query, Question.
Q. B. Queen's Bench.
Q. C. Queen's Council, Queen's College.
Q.d. As if he should say.
Q. e. Which is.
Q.E.D. Which was to be demonstrated.
Q.L. As much as you please.
Q.M. Quarter Master.
Q.M.G. Quarter Master General.
Qr. Quarter (28 lbs), Farthing, Quire.
Q. s. A sufficient quantity.
Qt. Quart, Quantity.
Qu. Queen, Question, Quarter.
Qu. or qu. Query.
Quad. Quadrant, Quadrate.
Quar. Quarterly.
Ques. Question.
Q.v. Which see, As much as you please.
Qy. Query.

R

R. Railway, Rhodium, River, Rod, Hood, Queen, King, Take.
R.A. Royal Academy, Royal Arch, Royal Artillery, Rear Admiral, Right Ascension.
R.A.C. Royal Arch Chapter.
Rad. Root, Radical.
R. Admi. Rear Admiral.
R.A.M. Royal Academy of Music.
Rb. Rubidium.
R.C. Roman Catholic.
R.D. Royal Dragoons.
R.E. Royal Engineers, Royal Exchange, Right Excellent, Reformed Episcopal.
Rec. Recorder, Recipe.
Recd. Received.
Rec. Sec. Recording Secretary.
Rect. Rector, Receipt.
Ref. Reference, Reformed, Reformation.
Ref. Ch. Reformed Church.
Reg. or Regr. Register, Registrar, Registry.
Regt. or Regt. Regent, Regiment.
Rel. Pron. Relative Pronoun.
Rem. Remark -s.
Rep. Representative, Reporter, Republic.
Rev. Reverend, Revenue, Revelation, Revolution, Review, Revise.
Rev. Ver. Revised Version.
Rhet. Rhetoric.
R. I. Rhode Island
Richd. Richard.
Riv. River.
R.M. Royal Mail, Royal Marines.
R.N. Royal Navy.
Ro. or Robt. Robert.
Rom. Roman, Romans.
Rom. Ch. Roman Catholic.
R.R. Railroad, Right Reverend.
R.S. Recording Secretary, Right side.
Rt. Hon. Right Honorable.
Rt. Rev. Right Reverend.
Russ. Russia, Russian.
R.V. Revised Version.
R.W. Railway, Right Worthy or Worshipful.
Ry. Railway.

S

S. Saint, Sound, Sign, Sculptor, Sunday, Second, Sulphur, Signor, Shilling, Sun.
$ Dollar -s.
S. A. South America, South Africa, South Australia.
Sam. Samuel.
Sans. Sanskrit.
Sat. Saturday.
Sax. Saxon.
Sb. Antimony.
S. C. South Carolina, A decree of the Senate, Small Caps.
Sc. or scil. To wit, namely.
S. caps. Small capitals.
Sch. or Schl. A note.
Sch. or Schn. Schooner.
Sci. Science.
Sci. fa. Make known.
Scil. or sc. To wit, namely.
Sclav. Sclavonic.
Scot. Scotland, Scottish, Scotch.
Scr. Scruple.
Script. Scripture, Scriptural.
Sculp. or Sculpt. Sculptor.
S. D. South Dakota, Doctor of Science.
S. E. Southeast, Southeastern.
Se. Selenium.
Sec. Secretary, Second, Section.
Sec. Leg. Secretary of Legation, According to law.
Sect. Section.
Sen. Senate, Senator, Senior.
Sep. or Sept. September, Septuagint.
Seq. or Sqq. The following, The next.
Ser. Series.
Serg. or Serj. Sergeant, or Serjeant.
Serg. Maj. Sergeant Major.
Serv. or Servt. Servant.
S. G. Solicitor General.
Sh. Shilling, Ship.
S. H. S. Fellow of the Historical Society.
Si. Silicium.
Sim. or Sing. Singular.
S. Is. Sandwich Islands.
S. J. Society of Jesus.
S. J. C. Supreme Judicial Court.
Skr. Sanskrit.
S. Lat. South Latitude.
Slav. Slavonic, Slavonian.
Sld. Sailed.
S. M. Short Meter, State Militia, Sergeant Major, Sons of Malta.
Sm. C. Small Capitals.
S. M. L. His or Her Imperial Majesty.
Smith. Inst. Smithsonian Institution.
Sn. Tin.
S. o. Seller's option.
Soc. Society.
S. of Sol. Song (or Songs) of Solomon.
S. of T. Sons of Temperance.
Sol. Solomon, Solution, Solicitor.
Sp. Spain, Spanish.
Sp. gr. Specific gravity.
Sq. Square, The following.
Sq. ft. Square feet.
Sq. in. Square inch -es.
Sq. m. Square mile -s.
Sq. rd. Square rod -s.
Sq. yd. Square yard -s.
Sr. Sir, Senior, Strontium.
S. R. I. Holy Roman Empire.
S. S. Sunday School, or Sabbath School.
SS. Saints.
S. S. D. Solicitor before the Supreme Court.
S. S. E. South-Southeast.
S. S. W. South-Southwest.
St. Stere, Stanza, Saint, Street, Strait.
Stat. Statute -s, Statuary.
S. T. D. Doctor of Sacred Theology, Doctor of Divinity.
Ster. or Stg. Sterling.
S. T. P. Prof. of Theology.
Str. Steamer.
Sts. Streets.
Subj. Subjunctive.
Subst. Substantive, Substitute.
Suff. Suffix.
Sun. or Sund. Sunday.
Sup. Supplement, Superfine, Superior, Superintendent.
Sup. C. Superior Court.
Superl. Superlative.
Supt. Superintendent.
Surg. Surgeon, Surgery.
Surv. Surveyor, Surveying.
Surv. Gen. Surveyor General.
Sus. Susannah.
S. W. Southwest, Southwestern, Senior Warden.
Sw. Sweden, Swedish.
Switz. Switzerland.
Syn. Synonym.
Synop. Synopsis.
Syr. Syria, Syriac, Syrup.

T

T. Territory, Town, Township, Ton, Tenor, Tuesday.
T. or Tom. Tome, Volume.
Ta. Tantalum.
Tan. Tangent.
Tart. Tartaric.
Tb. Terbium.
Te. Telurium.
Tel. Telegram, Telegraph.
Tenn. Tennessee.
Ter. Territory.
Teut. Teutonic.
Tex. Texas.
Th. Thomas, Thorium.
Th. or Thurs. Thursday.
Theo. Theodore, Theodosia.
Theol. Theology, Theological.
Theor. Theorem.
Thess. Thessalonians.
Thos. Thomas.
Thurs. Thursday.
Ti. Titanium.
Tier. Tierce.
Tim. Timothy.
Tit. Titus, Title.
Tl. Thallium.
T. o. Turn over.
Tob. Tobit.
Tom. Volume.
Tonn. Tonnage.
Topog. Topography.
Tr. Transpose, Translation, Treasurer, Trustee.
tr. A shake.
Trans. Translator, Translation, Transportation.
Trcs. Tierces.
Treas. Treasurer.
Trin. Trinity.
Tu. or Tues. Tuesday.
Turk. Turkey, Turkish.
Typ. or Typo. Typographer, Typog. Typography -er.

U

U. Uranium.
U. A. O. D. United Ancient Order of Druids.
U. C. Upper Canada.
U. G. R. R. Underground Railroad.
U. I. Island.
U. K. United Kingdom.
U. L. A. Union League of America.
Ult. Last month.
Unit. Unitarian.
Univ. University, Universalist.
U. P. United Presbyterian.
U. S. United States.
U. S. A. United States of America, United States Army.
U. S. M. United States Mint, United States Marine.
U. S. M. A. United States Military Academy.
U. S. N. United States Navy.
U. S. N. A. United States Naval Academy.
U. S. S. United States Senate, United States Ship (or Steamer).
U. S. V. United States Volunteers.
U. T. Utah Territory.
Ux. Wife.

V

V. Vanadium, Victoria, Viscount, Verb, Vocative, Verse, Volume, Violin, Village, Five.
V. a. Verb active.
V. A. Vice Admiral, Vicar Apostolic.
Va. Virginia.
Vat. Vatican.
V. aux. Verb auxiliary.
Vb. n. Verbal noun.
V. C. Vice Chancellor, Vice Chairman, Victoria Cross.
Ven. Venerable.
Ver. Verse -s, Vermont.
Vet. Surg. Veterinary Surgeon.
V. G. Vice General, Vice Grand.
V. i. Verb intransitive.
Vid. See.
Vil. Village.
V. imp. Verb impersonal.
V. irr. Verb irregular.
Vis. or Visc. Viscount.
Viz. Namely, To wit.
V. n. Verb neuter.
Voc. Vocative.
Vol. Volume.
V. P. Vice President.
V. R. Queen Victoria, Very Reverend.
Vs. Against, In opposition.
Vt. Vermont.
V. t. Verb transitive.
Vul. or Vulg. Vulgate.

W

W. Wednesday, West, Welsh, Warden, Week.
Wash. Washington.
W. A. West Australia, West Africa.
W. C. West Central, Water Closet.
W. C. T. U. Women's Christian Temperance Union.
Wed. Wednesday.
W. f. Wrong font.
Wht. What.
W. I. West India -ies.
Wis. or Wisc. Wisconsin.
Wk, Week, Work.
W. Lon. West longitude.
Wm. William.
W. N. W. West-Northwest.
W. S. W. West-South-west.
Wt. Weight.
W. Va. West Virginia.
Wyo. Wyoming.

X

X. Christ, Ten or tenth, St. Andrew's Cross, His (or her) mark, Exchange.
Xmas. or Xm. Christmas.
Xn. or Xtian. Christian.
Xnty. or Xty. Christianity.
Xt. Christ.

Y

Y. Yttrium, Year.
Y. B. or Yr. B. Year-Book.
Y. C. Yale College.
Yd. Yard -s, Yards.
Y. T. Thy or Thee.
Y'm. Them.
Y. M. C. A. Young Men's Christian Association.
Y'n. Then.
Y'r. Their.
Yr. Your, Year.
Yrs. Yours, Years.
Y't. This.
Y't. That.
Y. W. C. A. Young Women's Christian Association.

Z

Z. Zero, Zinc, Zone.
Z. or Zr. Zirconium.
Zach. Zacharty.
Zeb. Zebulon, Zebedee.
Zech. Zechariah.
Zeph. Zephaniah.
Zn. Zinc. -- Zod. Zodiac.
Zoöl. Zoology. -Zr. Zirconium.

TABLE OF VELOCITIES.

The velocities given in the following list have been compiled from various authorities, and while it cannot be said what the possibilities of many of the moving bodies are, such as steam vessels, locomotives, etc., yet the figures given will convey a general idea of such possibilities. The slow coach of the time of Washington will not compare with the lightning express train at the close of the nineteenth century. Who can say what are the possibilities of electricity as a motive power!

BLOOD, circulates through the system in two minutes. If allowed to move in a straight line, it would move at the rate of 150 feet per minute.

BICYCLE, one mile may be attained in two minutes.

CANNON BALL, (24 lb) at the rate of 1600 miles per hour.

CARRIER PIGEON, 43 miles per hour.

CARS, an express train attains a speed of 60 miles per hour. 82.7 miles per hour has been attained.

CLOUDS, storm clouds, apparently moving slowly, often attain a velocity of 100 miles per hour.

COMET (Halley's), in perihelion, 1,180,000 ft. per second.

CROW, flies at the rate of 25 miles per hour.

CYCLONE, spiral motion of wind, 180 miles per hour.

DUCK, 90 miles per hour.

EARTH, point on equator when rotating on its axis, 1076 miles per hour. In its orbit while revolving around the sun, 65,533 miles per hour.

EARTHQUAKE SHOCK, 13th Aug., 1868, 764 ft. per second; 25th July, 1885, 5,104 ft. per second.

EIDER DUCK, 90 miles per hour.

ELECTRICITY, submarine wire, 13,128,000 ft. per second; aerial wire, 118,152,000 ft. per second.

ELEVATOR, in Western Union Telegraph Building, N.Y., 500 ft. per minute.

FALCON, 74 miles per hour.

FALLING BODIES, 1st second, 16¼ ft.; 2nd second, 64.4 ft.; 3rd second, 144.4 ft.; 4th second, 257.6 ft.; etc.

GLACIERS, for those of the first rank in the Alps, 100 yards per year; of the second rank, about 25 yards per year.

GULF STREAM, 4 to 5 miles per hour.

HAWK, 150 miles per hour.

HORSE, trots, 7 miles per hour; runs, 20 miles per hour. In Racing the following records have at different times been made: running, 1 mile in 1 minute and 35¼ seconds; trotting, 1 mile in 2 minutes and 8¾ seconds; pacing, 1 mile in 2 minutes and 13 seconds.

HUMMING BIRD, at the rate of 180 miles per hour.

HURRICANE, 80 miles per hour.

ICE BOAT, is said to outrival all other modes of locomotion, it running at the rate of a mile per minute with ease.

INSECTS, the wings of the common housefly flap at the rate of 330 times per second; of the bumble bee, 240; of the honey bee, 190; of the wasp, 110; of the dragon fly, 28; of the gnat, 15,000.

JUPITER, revolves in its orbit 28,774 miles per hour.

LIGHT, 192,000 miles per second; passes from the sun to the earth in 8 minutes and 13 seconds. From the nearest fixed star to the earth in about 3¼ years.

MAN, walks from 4 to 5 miles per hour. 1 mile has been attained by walking in 6 minutes and 23 seconds; 5 miles in 35 minutes and 10 seconds; 100 miles in 18 hours, 8 minutes and 15 seconds.

MARS, revolves in its orbit 53,000 miles an hour.

MARTIN, 200 miles per hour.

MERCURY, revolves in its orbit 105,000 miles per hour.

METEOR, 30 miles per second.

MILL STONES, 4 ft. in diameter, 120 to 140 revolutions per minute; dressing machines, 21 inches diam., 450 to 500 revolutions per minute; screen, 16 inches diam., 300 to 350 revolutions per minute.

MOON, in its orbit around the earth 236 miles per hour.

MUSKET BALL, 850 miles per hour.

NEPTUNE, revolves in its orbit 11,958 miles per hour.

OCEAN WAVE, during tempest, 50 miles per hour.

PENDULUM, vibrates seconds at the equator when 39.0152 inches in length. Either north or south from the equator the pendulum slightly lengthens as the latitude increases.

PIANO WIRES, middle C, 264 times per second; one octave above, 528; one octave below, 132.

RIFLE BALL, 1000 miles per hour.

RIVERS, slow when 3 miles per hour; rapid when 7.

ROWING, in single scull 1 mile has been attained in 5 minutes; in double scull 1 mile in 5 minutes and 55 seconds; in four-oared shell 1 mile in 4 minutes and 51 seconds.

RUNNING, 1 mile has been attained in 4 minutes and 12¾ seconds; 5 miles in 24 minutes and 40 seconds; 100 miles in 13 hours, 26 minutes, and 30 seconds.

SAILING VESSELS, 10 miles per hour.

SATURN, in its orbit 21,221 miles per hour.

SENSATIONS, in human nerves, 108 ft. per second.

SIRIUS, 153,000 ft. per second.

SKATING, 1 mile in 2 minutes and 12 seconds has been attained.

SNOW SHOES, 1 mile in 5 minutes and 40 seconds.

SOLAR ATMOSPHERE, 90,000 to 180,000 ft. per second; tempest, 1,200,000 ft. per second.

SOUND, in dry air at 82°, 1,142 ft. per second, or about 775 miles per hour; in water, 4,900 ft. per second; in iron, 17,500 ft. in copper, 10,378; in wood, from 12,000 to 16,000 ft. per second.

SPARROW, 150 miles per hour.

STEAM BOAT, 18 miles per hour. 25 miles per hour is attainable.

STORM, 36 miles per hour. See Wind.

SUN, point on equator, 6,090 ft. per second.

SWIFTS, 150 miles per hour.

SWIMMING, 100 yds. in 1 min., 5½ sec.; 300 yds. in 4 min., 8 sec.; 600 yds. in 8 min., 40 seconds; 1 mile in 26 min., 52 sec.; 20 miles in 5 hours, 51 minutes.

TEMPEST, 60 to 70 miles per hour. On the Sun, 940,580 miles per hour.

TIDAL WAVE, in open ocean, as great as 900 miles per hour.

TRICYCLE, ¼ mile in 1 min., 15 sec.; 1 mile in 2 min., 28 sec.; 5 miles in 13 min., 50 sec.

TROTTING, see Horse.

URANUS, revolves in its orbit 14,963 miles per hour.

VENUS, revolves in its orbit 77,050 miles per hour.

VULCAN, revolves in its orbit 174,000 miles per hour.

WALKING, see Man.

WAVES, see Ocean Wave.

WINGS, the wing of the sparrow flaps 13 times per second; of the wild duck, 9; of the pigeon, 8; of the osprey, 6; of the humming bird, 100.

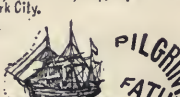
WIND,

Miles per hour	Pressure per sq. ft. in lbs.	Characteristics.
½	.....	Not perceptible.
1	0.005	Hardly perceptible.
2	0.020	Just perceptible.
5	0.123	Gentle breeze.
10	0.492	Brisk wind.
20	1.968	Very brisk wind.
25	3.075	
30	6.027	High wind.
45	9.963	Very high wind.
50	12.300	Storm.
60	17.715	Great storm.
80	31.490	Hurricane.
100	49.200	Great hurricane.
180	.....	Cyclone.

CIRCUMNAVIGATORS OF THE GLOBE.

	Date of Voyage
Magalhaens, Portuguese, who names Magellan's Straits	1519
Endaña, Spaniard, who names the Marquesas, or Mendaña Islands	1567
QUIROS, Spaniard	1605
SIR FRANCIS DRAKE, first English	1577
CAVENDISH, first voyage	1586
LE MAIRE, Dutch	1615
TASMAN, Dutch, who names Tasmania	1642
DAMPIER, English	1679
COOKE, English	1708
ROGGEWEEN, Dutch	1721
ANSON, British	1740
BYRON, English	1764
WALLIS, British	1766
BOUGAINVILLE, French	1766
CARTERET, English	1766
JAMES COOK	1768
KING, continued after Cook's death	1779
KING AND FITZROY, British	1826-36
BELCHER, British	1836-42
WILKES, American	1838-42
TRAIN, G. F., American, completed, May 4, 1890, a trip around the world in 67 days, 13 hours, 3 minutes, 3 seconds, stopping over one day in New York City.	

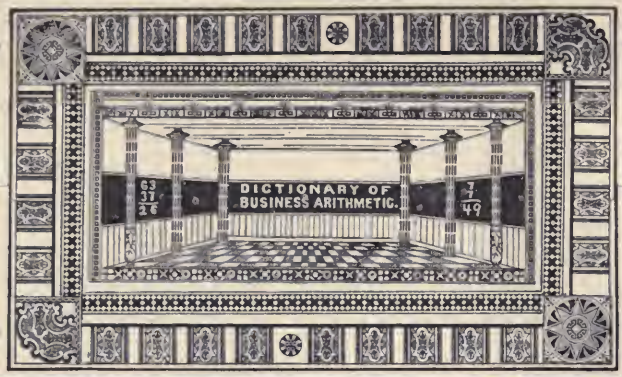
COMPACT OF THE PILGRIM FATHERS.



The following is the compact as signed on board the Mayflower just before landing:

"In ye name of God, Amen. We whose names are underwritten, the loyall subjects of our dread soveraigne Lord, King James, by ye grace of God, of Great Britaine, France & Ireland king, defender of ye faith, &c., having undertaken, for ye glorie of God, and advancemente of ye Christian faith, and honour of our king & countrie, a voyage to plant ye first colonie in ye Northerne part of Virginia, doe by these presents solemnly & mutually in ye presence of God, and of one another, covenant & combine our selves together into a civil body politick, for our better ordering & preservation & furtherance of ye ends aforesaid; and by vertue hearof to enact, constitute, and frame such just & equall lawes, ordinances, acts, constitutions & offices, from time to time, as to be thought most meete & convenient for ye generall good of ye Colonie, unto which we promise all due submission and obedience. In witness of which we have hereunder subscribed our names at Cap-Codd ye 11th of November, in ye year of ye raigne of our soveraigne lord, King James, of England, France & Ireland ye 18th, & of Scotland ye fiftie fourth Ano: Dom. 1620."

NOTE. In the following pages will be found all definitions, rules, processes, and illustrations in practical arithmetic that an ordinary business man has occasion to use.



NOTE. The alphabetic arrangement will be found to greatly expedite readiness of reference, and the example following most of the rules, sufficiently elucidates their application.

ABSTRACT.—Separate or distinct from something else. **An** abstract quantity is one which does not involve the idea of matter, but simply that of a mental conception. **All** numbers are abstract when the unit is abstract.

ACRE.—A unit employed in the measurement of land. It contains 43,560 square feet, 4840 square yards, or 160 square rods. In the form of a square, one side measures 208.7 feet, or 69.57 yards. (See Land or Square Measure—Index).

ACCURATE INTEREST.—Interest computed according to the exact number of days. **To find** accurate interest, Compute it at the rate of 360 days to the year, and subtract from it $\frac{1}{72}$ part of itself; in leap-year subtract $\frac{1}{73}$.

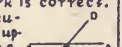
ACUTE.—Sharp as opposed to obtuse. **An** acute angle is one that is less than a right angle, or 90°. **An** acute-angled triangle is one having all of its angles acute.

ADDITION.—Finding the simplest equivalent expression for the aggregate of two or more quantities of the same kind. **To prove** the accuracy of the operation of addition, (1) Add the columns of units from the top downwards, and then from the bottom upwards; (2) Separate the numbers into two or more groups, adding each group separately, and then the several results; (3) Cast out the 9's, by taking the sum of the digits in each number to be added, and having divided each sum by 9, set down the remainder in a column at the right. Take the sum of these remainders and divide it by 9, setting the remainder beneath. If this remainder is the same as that found by dividing the sum of the digits in the sum total by 9, the work is correct.

Example.

7435	1
8306	8
3947	5
19688	5

ADJACENT.—Contiguous to, or bordering upon. **Adjacent** angles are those which have one side in common, and their other sides a prolongation of the same straight line; thus, the angles DBC and DBA are adjacent.



AGGREGATE.—The sum of several particulars, or an assemblage of parts to form a whole.

ALIQUOT PART.—For definition see under Business Terms. **To find** the aliquot parts of a number, Divide it by the least number except 1, that will exactly divide it; then divide the quotient by its least divisor except 1; and so on, always dividing the last quotient by its least divisor except 1, till 1 is obtained as a quotient, which, with the several divisors, constitute the aliquot parts of the number.

ALLIGATION.—The compounding or mixing of ingredients. (See Business Terms—Index). **Alligation Medial** is the process of finding the average value or quality of a mixture, the quality and quantity of whose ingredients are known. Thus mixing together 50 bushels of oats, at 40 cents per bushel; 30 bushels of barley, at 50 cents per bushel, and 25 bushels of corn, at 60 cents per bushel, one bushel of the mixture is worth $47\frac{17}{21}$ cents. **Alligation Alternate** is the process of finding what amount of each of several simple ingredients, whose prices or qualities are known, must be taken to form a mixture of any required price or quality. **In solving** problems of this class, Compute the balance of gain or loss on the definite quantities taken; then cancel this balance by taking a sufficient quantity of one or more of the same or other elements furnished. **Example.** To make a grade worth 11¢ per pound, how many pounds at 9¢, must be mixed with 100 pounds of coffee at 12¢, and 90 pounds at 10¢? **Operation.**

Operation.

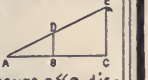
	cts.	cts.
	40 × 50 =	2000
	50 × 30 =	1500
	60 × 25 =	1500
	105	5000
		$47\frac{17}{21}$

Av. at	El's at	Gain or loss per lb.	Lbs.	Total gain or loss.	Balance		Total value.
	12	1 −	100	100 −			12.00
11	10	1 +	90	90 +			9.00
					10 −		
	9	2 +	5		10 +		.45

Proof.—If 195 lb. are worth 21.45
1 lb. is worth ..... .11

Note.—+ shows gain, and −, loss.

ALTITUDE.—The height of a body, or its third dimension. **To measure** an accessible altitude, Select any convenient point A, on a horizontal line through C; measure the distance CA; then measure off a distance AB towards the object, and at B set up a vertical stake; from A, sight to the top of the object, and note the point E where this line of sight cuts the stake, and then measure DB. From similar triangles



AB is to DB as AC is to EC;

whence, $EC = \frac{DB \times AC}{AB}$

Similarly the altitude of an object which is accessible, may be determined by means of its shadow.

ANALYSIS.—Logically deducing from the terms of a problem the conditions and relations required in its solution, which are not fully stated. **Example.**—If 4 lbs.

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of sugar cost 28 cts., what will 9 lbs.? **Analysis.**—If 4 lbs. cost 28 cts., one pound will cost one-fourth of 28 = 7 cts., and 9 pounds will cost nine times 7 cts. = 63 cts.

ANGLE.—The portion of space lying between two lines, or between two or more surfaces, meeting in a common point.

ANNUITY.—For definition see under Business Forms and Terms. A **certain annuity** is an annuity payable for a definite length of time. A **contingent annuity** is one payable for an uncertain period of time, as during life. A **deferred annuity** is one not to be entered upon until after a certain period of time. A **reversionary annuity** is one not to be entered upon till after the death of a certain person. An **annuity in possession** is one to be entered upon at once. A **life annuity** is one to continue during the life of one or more persons. A **contingent life annuity** is one to continue for a certain number of years, provided a certain person survives the period mentioned. A **perpetual annuity** is one to continue forever. A **forborne annuity** is one in arrears, that is, the payment may not have been made when due. (See Compound Interest Tables, Nos. 3 and 4. also Life Annuity).

ANTECEDENT.—The first of the two terms in a ratio, which are compared together. It forms the standard of comparison, and must be known before the value of the other term (the consequent) can be expressed. (See Ratio).

APPLES, Potatoes, etc.—To find the number of bushels of apples, potatoes, etc., in a bin, Multiply the length, breadth and thickness together, and this product by 8, and point off one figure in the product for decimals.

APOTHECARIES' Weight and Measure.—Used in mixing and compounding medicines. For the table, see under Weights and Measures.

ARABIC Notation.—That method of expressing numbers by the use of characters called figures. They are, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0; the last is used for vacant orders.

ARC.—A part of the circumference of a circle or other curve. To find the length of an arc, use the following formula: The number of degrees (deg.) contained in an arc, and the diameter (diam.) of the circle being given, required the length (l) of the arc:

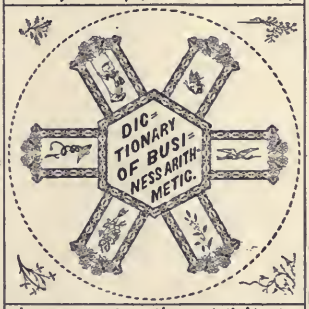
$$\text{deg.} \times \text{diam.} \times 3.1416 \div 360 = l.$$

AREA.—The superficial contents of any surface expressed in terms of some given surface assumed as a unit or standard of comparison; the unit of measurement usually being a square.

ARITHMETIC.—That branch of mathematics treating of the relations and properties of numbers when expressed by the aid of figures, or combinations of figures.

AVERAGE.—The quotient arising from dividing the sum of two or more terms by their number; thus the average of 3, 8, 9, 11, and 14 = (3 + 8 + 9 + 11 + 14) ÷ 5 = 9. — For the commercial signification of this term, see under Business Forms and Terms.

AVERAGE or Equation of Payments.—The method of finding the time when the payment of several sums, due at different times, may be made at once, without loss of interest to either debtor or creditor. The **Focal Date** is the date from which the time is reckoned to the dates when the several amounts become due. (See Business Time Tables). **To find** the average time when all the terms of credit begin at the same time, Multiply each amount by



its term of credit, and divide the sum of the several products by the sum of the debts; the quotient will be the average term of credit.

Example.—A merchant purchases goods, January 6th, amounting to $900: $300 payable in 6 months, $300 in 8 months, and $300 in 10 months. When may the whole be paid without loss to either party?

Solution.

$300 for 6 mos. = $1800 for 1 mon.
300 " 8 " = 2400 " "
300 " 10 " = 3000 " "
900) 7200 = 8 months.

To find the average time when the terms of the credits begin at different times, Find the date when each debt becomes due. (See Business Time Tables). Find the time intervening between the earliest of these dates and the date of each succeeding amount. Multiply each amount by the time intervening between the earliest date and the date when the amount becomes due. Divide the sum of the products by the sum of the debts; the quotient will be the average time required. Add this average time to the focal date for the day of payment. **Example.**—Required the time when the amount of the debts as below stated become due per average.

Date of purchase.	Amount.	Time of credit.	When due.
Jan. 6,	$300	6 mos.	July 6.
Apr. 10,	200	6 "	Oct. 10.
May 7,	400	3 "	Aug. 7.

Statement.

Due.	Days.	Am't.	Product
From July 6 to July 6,	0	× 300	00000
" " " Aug. 7,	32	× 400	12800
" " " Oct. 10,	96	× 200	19200
		900	) 32000 (35 5/9

Ans. 36 days from July 6th is Aug. 11th.

AVOIRDUPOIS.—The system of weights by which the coarser commodities are weighed, such as hay, grain, wool, and the coarser metals. For table see under Weights and Measures.

BARREL.—A unit of liquid measure, differing in value for different articles measured. The English wine barrel contains 31½ gallons, and the beer barrel, 36 gallons. (See Weights and Measures).

BASE.—The side of a plane figure upon which it is supposed to lie. In a triangle, the base lies opposite the angular point chosen as the vertex. The Base of a System of Numbers, is the value of the unit of the first order, it being the abstract number 1, for all systems of abstract numbers. In denominate numbers, the base is 1 thing of the kind numbered.

BILLION.—In the decimal system, a unit of the tenth order, which is a thousand millions.

BLAZE.—A spot made on the side of a tree, by removing the bark with an axe. It is used in surveying, and for distinguishing different points.

BOARD MEASURE.—The unit of lumber measure is a foot 12 inches long, 12 inches wide, and 1 inch thick. All kinds of lumber and timber are estimated by this unit, except that timber is sometimes estimated by the cubic foot. **To find** the contents of an inch board, Find the product of the length and breadth in feet. For a two-inch board, multiply the area by 2; for a half-inch board, divide by 2, etc. If the board tapers, take half the sum of the two ends for the average width. **To find** the contents of a plank, joist, etc., estimated in board measure, Find the product of the width in inches, the thickness in inches, and the length in feet; and take ½ of this. If the timber tapers in width and in thickness, the contents in cubic feet may be found by multiplying half the sum of the

areas of the two ends in inches by the length in feet and dividing the product by 144. **To find** the number of cubic feet in round timber, **Find** the average circumference by adding the circumference of the larger and smaller ends and dividing by 2; multiply the square of one-fourth of this average circumference by the length in feet; the result gives four-fifths of the real contents in cubic feet, one-fifth being customarily allowed to the purchaser for waste in sawing. (See Instantaneous Method of Measuring Lumber).

BUSHEL.—See under Business Forms and Terms, also under Weights and Measures.

BUTT.—A measure for liquids, containing 108 imperial gallons.

CANCELLATION.—The operation of striking out the common factors in both dividend and divisor, before performing the operation of division.

CARAT.—A weight of four grains employed in weighing diamonds. The term is also used in measuring the fineness of gold, the whole mass being divided into 24 equal parts, the number of these parts which are pure gold will express the number of carats of fineness, as 22 carats fine.

CARDINAL Points.—The four principal points of the compass: North, South, East, West.

CASK.—**To find** the mean diameter of a cask (nearly), **Add** to the head diameter ⅔, or, if the staves are but little curved, .6, of the difference between the head and bung diameters. **To find** the contents of a cask in gallons, **Multiply** the square of the mean diameter by the length (both in inches), and this product by .0034.

CAUSE and Effect.—Anything operating to produce a result is a cause, and the result is the effect. It is a natural law that the effect is proportional to the cause which produces it. A cause or an effect may be either simple or compound: simple, when it involves but one element: compound, when it involves two or more elements. **Example.**—If 10 men in 5 days of 7 hours each, dig a trench 25 feet long, 8 feet wide, and 7 feet deep, in how many days of 12 hours each will 4 men dig a trench 12 feet long, 10 feet deep, and 8 feet wide?

Statement.

1st Cause.	2d Cause.	1st Effect.	2d Effect.
10	12	25	12
5	4	8	10
7	x	7	8

Operation.

$$x = \frac{12 \times 10 \times 8 \times 10 \times 5 \times 7}{12 \times 4 \times 25 \times 8 \times 7} = 5 \text{ days.}$$

CENTIGRAMME.—The hundredth part of a French gramme, equal to about ⅓₀ of a grain.

CENTILITRE.—The hundredth part of the French litre, equal to about ⅓ of a cubic inch.

CENTIMETRE.—The hundredth part of the French metre, equal to about ⅖ of an inch.

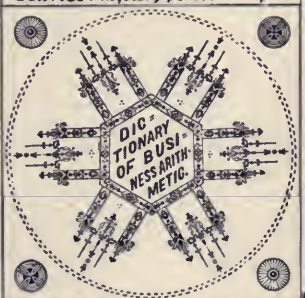
CENTURY.—A period of time the length of which is 100 years.

CHAIN.—An instrument used in surveying, and is 66 feet in length, containing 100 links, each link being 7.92 inches long. It is usually called Gunter's chain.

CHORD.—A straight line joining the two extremities of an arc of a curve.

CIPHER.—The character 0. It signifies no number when standing by itself, but in combination, it occupies a place in the arithmetical scale, and indicates that there are no units of that order in the number.

CIRCLE.—A portion of a plane AEBF, bounded by a curved line, every point



of which is equally distant from a point within called the centre. The bounding line is called the circumference. The diameter is a straight line drawn through the centre and terminated by the circumference, as AB. The radius is a straight line from the centre to the circumference, as CD. An arc is any portion of the circumference, as AE. A sector is the space included between two radii and the intercepted arc, as BCD. A chord is a straight line joining the extremities of an arc, as AO. A segment is bounded by an arc and its chord, as AOE. A plane figure is inscribed in a circle when the vertices of its angles are in the circumference of the circle, as LMNO is inscribed in the circle whose radius is PM. A circular ring is the space enclosed between the circumferences of two concentric circles. Concentric circles have the same centre but different radii, as the circles whose

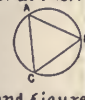
radii are PK and PT. **To find** the circumference of a circle, Multiply the diameter by 3.1416. **To find** the diameter of a circle, Divide the circumference by 3.1416. **To find** the area of a circle, Multiply the square of the radius by 3.1416; or Divide the square of half the circumference by 3.1416; or Multiply the circumference by one-fourth of the diameter. **To find** the diameter or circumference of a circle, Divide the area by 3.1416, the square root of the quotient will be half the diameter, and the diameter multiplied by 3.1416 will be the circumference. **To find** the area of a sector of a circle, Multiply half the length of the arc by the radius; or Take the same part of the area of the circle as the number of degrees in the arc are of 360°. **To find** the area of a segment, From the area of the sector, subtract the area of the triangle formed with the chord and radii, for a segment less than a semi-circle; but add these areas for a segment greater than a semi-circle. **To find** the area of a zone, STUV, From the area of the circle, subtract the areas of the segments not included in the zone. **To find** the area of a circular ring, Find the difference between the areas of the two circles. **To find** the side of an inscribed equilateral triangle, Multiply the diameter by .866025. **To find** the side of an inscribed square, Multiply the diameter by .707106. **To find** the side of a square that shall contain the same area as a given circle, Multiply the diameter by .886227.

CIRCULAR Measure.—Used to determine localities, by estimating latitude and longitude; also to measure the motions of the heavenly bodies, and compute differences of time. For table, see under Weights and Measures.

CIRCULAR Ring.—See Circle.

CIRCULATING Decimal, or Repeating Decimal.—One in which one or more figures are continually repeated in the same order; as, .33333, .57235723, etc. The figure or set of figures which is repeated is called the repetend.

CIRCUMFERENCE.—See Circle. The circumferences of different circles are to each other as their diameters, or radii.



CIRCUMSCRIBE.—To limit or bound. A figure drawn around another, so that all its sides or faces shall be tangent to the second figure, which is then called an inscribed figure. The circle ABC is circumscribed about the triangle ABC.

CISTERN.—**To find** the number of gallons in a quadrilateral cis-

tern, Multiply the length, width, and depth, in inches, together, and divide the product by 231. **To find** the number of gallons in a circular cistern of uniform diameter, Multiply the square of the diameter (in inches) by .7854, which product multiply by the depth (in inches); then divide by 231. **To find** the number of gallons in a circular cistern whose lower and upper diameters differ, To the sum of the squares of the lower and upper diameters, add the product of the lower and upper diameters; then multiply by .7854, which product multiply by the depth (all in inches); then divide by 693. (See Cisterns, under Weights and Measures).

CLOTH Measure.–See table under Weights and Measures.

COIN.–Pieces of metal, as gold, silver, copper, etc., converted into money by stamping upon them certain characters. (See Coin, under Weights and Measures).

COMMON DIVISOR.–Any quantity which will divide two or more other quantities without a remainder; as, 4 is a common divisor of 20, 40, and 60. The greatest common divisor of two or more numbers is the greatest number that will exactly divide each; as, 4 is the greatest common divisor of 12, 16, and 28.–**To find** the greatest common divisor of two numbers, Divide the greater number by the less; if there be no remainder, the smaller number is the G.C.D. **If** there be a remainder after completing the division, divide the first divisor by this; divide this second divisor by any second remainder, and so on till an exact divisor is found. This exact divisor is the G.C.D. **If** there be more than two numbers, find the G.C.D. of the smallest number, and the sum of the others, which will be the greatest common divisor of all.

COMPASS.–An instrument to indicate the direction of the magnetic meridian, and also to determine the angle contained between that meridian and any horizontal line. It is named according to the different purposes for which it is used; as, surveyor's compass, mariner's compass, azimuth compass, etc., but the general principle is the same in all.

COMPLEMENT.–The difference between a number and a unit of the next higher order; thus the complement of 6 is (10–6) 4; of 76 is (100–76) 24; of 475 is (1000–475) 525; etc.

COMPLEX Fraction.–A fraction having a fraction or mixed number in either the numerator or denominator, or in both; thus $\frac{(\frac{1}{2})}{15}$, $\frac{4}{(\frac{3}{4})}$, $\frac{6\frac{1}{4}}{9}$, $\frac{\frac{3}{4}}{\frac{1}{2}}$, $\frac{2\frac{1}{2}}{3\frac{1}{4}}$, are complex fractions. **To reduce** a complex fraction to a simple fraction, Divide its numerator by its denominator.

COMPOSITE Number.–One that can be divided by some other number besides itself and unity; as, 10, 18, 48, 75, etc.

COMPOUND.–Composed of different things. **Compound** Addition, Subtraction, Multiplication, and Division, are names given to these several operations, when the numbers are expressed in a varying scale; as, years, months, days; bushels, pecks, quarts; etc. **Compound** Fraction.–A fraction of a fraction, or several fractions connected by the word of. **To reduce** a compound fraction to a simple fraction, **Find** the product of the numerators, and write it over the product of the denominators. **Compound** Interest.–Interest on both principal and interest. **To compute** compound interest, **Find** the interest on the given principal to the time the interest becomes due, and add the principal. Then find the interest on this amount for the next period, and add as before, and so continue for each successive period to the time of settlement. Subtract the given principal from the last amount, and the remainder will be the compound interest. **If** there be months and days, find the amount for the years, and the interest on this for the remainder of the time. (See Compound Interest Tables). **Compound Number.**–A number constructed according to a varying scale; as, 7cwt., 1qr., 10 lbs. Called also denominate number. **Compound** Ratio.–The product of two or more ratios. **Compound** Proportion.–An equality of two compound ratios, or of a compound ratio and a simple one. **In solving** problems in Compound Proportion, Arrange the terms of each of the simple ratios of the compound ratio as in Simple Proportion. Then, if an extreme term be required, it will be equal to the quotient of the product of the means divided by the product of the known extremes, and if a mean term be required, it will be equal to the product of the extremes divided by the product of the known means. **Example.**–If 10 men can mow 40 acres of grass in 3 days by working 8 hours each day, how many men will it take to mow 80 acres of grass in 4 days, working 6 hours each day? Ans. 20 men.

Statement.

4·0 A. . 80A. } :: 10 men : Ans. } = 20.
4 days : 3 days } :: 10 men : Ans. } = $\frac{80\times3\times8\times10}{40\times4\times6}$ = 20.
6 hours : 8 hours }

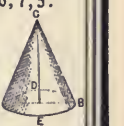
COMPUTE.–To reckon by the aid of figures or characters; to practically apply the rules of a science to individual examples.

CONCAVE.–A term applied to the inner surface of hollow bodies, and by analogy extended to lines.

CONCENTRIC.–A term applied to circles or spheres having the same centre but different radii, and sometimes, by analogy, to other surfaces and lines.

CONCRETE.–A term signifying that a quantity carries with it the idea of matter, as 10 boxes, 7 men, 5 stones, as opposed to abstract quantities, 10, 7, 5.

CONE.–A solid which may be generated by a right-angled triangle CAD, revolving about one of its sides, CD, adjacent to the right angle. The side CD, is called the axis, and its length measures the altitude of the cone. The side AD, generates a circle called the base, and the hypothenuse CA, generates a curved surface, which is called the lateral or convex surface of the cone. The length of the hypothenuse measures the slant height of the cone. A right cone has a circular base and a curved surface. The frustrum of a cone (or pyramid) is that part that remains after cutting off the top by a plane parallel to the base. The perimeter is the circumference of the base. **To find** the entire surface of a cone (or regular pyramid), Multiply the perimeter of the base by half of the slant height, and to the product add the area of the base. **To find** the solidity of a cone (or any pyramid), Multiply the area of the base by one-third of the altitude. **To find** the entire surface of a frustrum of a cone (or right pyramid), Multiply the sum of the perimeters, or circumferences of the two ends, by half of the slant height, and to the product add the



areas of the two ends. **To find** the solidity of the frustrum of a cone (or any pyramid), Multiply together the areas of the two bases, and extract the square root of the product. This root will be the area of a base which is a mean between the other two. Take the sum of the areas of the three bases, and multiply it by one-third of the altitude; the product will be the solidity.

CONSEQUENT.—The second term of a ratio. If the value of a ratio is given, and the antecedent is known, the consequent may be found by multiplying the ratio by the antecedent.

CONTENTS.—The contents of a plane figure, is the number of times which the figure contains some given area assumed as the unit of surface. It is the same as the area. The contents of a solid, is the number of times which the solid will contain some particular solid assumed, as the unit of volume. It is the same as the volume.

CONTOUR.—The bounding line, or perimeter, of a plane figure. The contour of ground, has reference to the surface of any part of the earth with respect to its undulations and accidents.

CONTRACTION.—The process of shortening any operation. For the contractions of the different operations, as Multiplication, Division, etc., see each in its proper order.

CONVEX.—Protuberant outwards, as the outer surface of a sphere. The opposite of concave.

CUBE, or Hexahedron.—A regular polyhedron bounded by six equal squares. It is the unit of measure for all volumes. The volume of any cube is equal to the product obtained by taking one of its edges three times as a factor. The cube of a number or quantity, is the product obtained by taking the number or quantity three times as a factor.

CORN.—Two cubic feet of good, sound, dry corn in the ear will make a bushel of shelled corn. **To find**, then, the number of bushels of shelled corn in a crib of corn in the ear, Multiply the length, breadth, and height (all in feet) together, and divide the product by 2. (See Bushel, under Weights and Measures).

CUBE ROOT.—A quantity which being taken three times as a factor, will produce the quantity of which it is the cube root; thus, 4 is the cube root of 64, because $4 \times 4 \times 4 = 64$. **To find** the cube root of a whole number, Separate the number into periods of three figures each, beginning at the right hand; (the left hand period will often contain less than three figures). Find the greatest cube in the left-hand period, and place its root at the right, like a quotient. Subtract the cube of this root from the left-hand period, and to the remainder annex the figures of the next period, and call this number the dividend. Take three times the square of the root found considered as tens for a trial divisor. Find how many times it is contained in the dividend, and write the quotient as the next figure of the root; then multiply the divisor by this last root figure, placing the product under the dividend. Multiply the square of the last root figure by the preceding root figure or figures considered as so many tens, and this product by 3, and place the product under the last; then under these two products place the cube of the last root figure, and find their sum, calling it the subtrahend. Subtract the subtrahend from the dividend, and to

the remainder bring down the next period for a new dividend, with which proceed as before till the required root be found. If any dividend be too small to contain the trial divisor, place a cipher in the root, and then proceed as before. If there be a remainder after the last period is used, annex periods of ciphers and continue the operation until the requisite number of decimal places be obtained. Extract the cube root of both terms of a common fraction when they are perfect powers; otherwise multiply the numerator by the square of the denominator, and divide the root of the product by the denominator, the result will be the root required. To extract the cube root of decimals or mixed decimals, ciphers must be added to fill the periods; if the root does not contain sufficient decimal places, prefix ciphers. In pointing off a mixed decimal into periods, begin at the decimal point, and point off in both directions. The following table contains the cube roots of numbers from 1 to 232.

No.	CUBE ROOT	No.	CUBE ROOT	No.	CUBE ROOT	No.	CUBE ROOT
1	1	59	3.892	117	4.890	175	5.593
2	1.259	60	3.914	118	4.904	176	5.604
3	1.442	61	3.936	119	4.918	177	5.614
4	1.587	62	3.957	120	4.932	178	5.625
5	1.709	63	3.979	121	4.946	179	5.635
6	1.817	64	4	122	4.959	180	5.646
7	1.912	65	4.020	123	4.973	181	5.656
8	2	66	4.041	124	4.986	182	5.667
9	2.080	67	4.061	125	5	183	5.677
10	2.154	68	4.081	126	5.013	184	5.687
11	2.223	69	4.101	127	5.026	185	5.698
12	2.289	70	4.121	128	5.039	186	5.708
13	2.351	71	4.140	129	5.052	187	5.718
14	2.410	72	4.160	130	5.065	188	5.728
15	2.466	73	4.179	131	5.078	189	5.738
16	2.519	74	4.198	132	5.091	190	5.748
17	2.571	75	4.217	133	5.104	191	5.758
18	2.620	76	4.235	134	5.117	192	5.768
19	2.668	77	4.254	135	5.129	193	5.778
20	2.714	78	4.272	136	5.142	194	5.788
21	2.758	79	4.290	137	5.155	195	5.798
22	2.802	80	4.308	138	5.167	196	5.808
23	2.843	81	4.326	139	5.180	197	5.818
24	2.884	82	4.344	140	5.192	198	5.828
25	2.924	83	4.362	141	5.204	199	5.838
26	2.962	84	4.379	142	5.217	200	5.848
27	3	85	4.396	143	5.229	201	5.857
28	3.036	86	4.414	144	5.241	202	5.867
29	3.072	87	4.431	145	5.253	203	5.877
30	3.107	88	4.447	146	5.265	204	5.886
31	3.141	89	4.464	147	5.277	205	5.896
32	3.174	90	4.481	148	5.289	206	5.905
33	3.207	91	4.497	149	5.301	207	5.915
34	3.239	92	4.514	150	5.313	208	5.924
35	3.271	93	4.530	151	5.325	209	5.934
36	3.301	94	4.545	152	5.336	210	5.943
37	3.332	95	4.562	153	5.348	211	5.953
38	3.361	96	4.578	154	5.360	212	5.962
39	3.391	97	4.594	155	5.371	213	5.972
40	3.419	98	4.610	156	5.383	214	5.981
41	3.448	99	4.626	157	5.394	215	5.990
42	3.476	100	4.641	158	5.406	216	6
43	3.503	101	4.657	159	5.417	217	6.009
44	3.530	102	4.672	160	5.428	218	6.018
45	3.556	103	4.687	161	5.440	219	6.027
46	3.583	104	4.702	162	5.451	220	6.036
47	3.608	105	4.717	163	5.462	221	6.045
48	3.634	106	4.732	164	5.473	222	6.055
49	3.659	107	4.747	165	5.484	223	6.064
50	3.684	108	4.762	166	5.495	224	6.073
51	3.708	109	4.776	167	5.506	225	6.082
52	3.732	110	4.791	168	5.517	226	6.091
53	3.756	111	4.805	169	5.528	227	6.100
54	3.779	112	4.820	170	5.539	228	6.109
55	3.802	113	4.834	171	5.550	229	6.118
56	3.825	114	4.848	172	5.561	230	6.126
57	3.848	115	4.862	173	5.572	231	6.135
58	3.870	116	4.876	174	5.582	232	6.144

CUBIC MEASURE.—Used for computing the contents of solid substances or volume of any space. It is also called solid measure. For table see under Weights and Measures.

CUBIC UNITS.—Standard measures of volume. The primary cubic units are—cubic yard, cubic foot, and cubic inch.

CURVE.—A line which changes its direction at every point; i.e., no three consecutive points of which lie in the same straight line.

CYLINDER.—A solid which may be generated by revolving a rectangle about one of its sides. This side is its axis. The opposite side generates a single curved surface, called the convex or lateral surface of the cylinder, and the two adjacent sides or ends generate circles called bases of the cylinder. The distance between the bases is called the altitude. **To find** the convex surface of a cylinder, Multiply the diameter by 3.1416, and this product by the length. **To find** the solid contents of a cylinder, Multiply the square of the diameter by .7854, and this product by the length.

DAY.—The natural period of time which elapses between two consecutive transits of one of the heavenly bodies over the meridian. (See Day under Business Forms and Terms).

DECAGON.—A polygon of ten sides and ten angles. If the sides are all equal and the angles equal, it is a regular decagon, and may be inscribed in a circle. **To find** the area of a regular decagon, Multiply the square of one of its sides by 7.6942.

DECAGRAMME.—A French weight of ten grammes, each gramme being equivalent to about 15.438 grains Troy.

DECALITRE.—A French measure containing ten litres, equivalent to 610.28 cubic inches.

DECAMETRE.—A French measure containing ten metres, or 393.71 English inches.

DECIMAL.—Any number expressed in the scale of tens; but a decimal fraction is generally understood. A decimal fraction is a fraction whose denominator is some power of ten; as, 1/10, 1/100, 1/1000, etc. In writing decimals, it is common to not express the denominators, thus the above fractions would be written, .1, .01, .001. The number of places of figures which follows the decimal point indicates the number of 0's in the denominator. The decimal point is a period used to separate integers from decimals, and when no integers are expressed, the decimal point is placed at the left of tenths' order. **To write** decimals, Write the decimal as a whole number, and place the decimal point so that the right-hand figure shall be of the lowest decimal order to be expressed, prefixing ciphers if necessary. **To read** decimals, Read the figures as in whole numbers, and add the name of the lowest decimal order expressed. **To add or subtract** decimals, Write the numbers so that the decimal points shall fall in column, then proceed as in whole numbers. **To multiply** decimals, Multiply as in whole numbers, and in the product point off as many decimal places as are in both factors. **To divide** decimals, Divide as in whole numbers, and point off in the quotient as many decimal places as the dividend has more than the divisor.

DECIMAL Currency.—A currency having decimal relations, as the various denominations of the money of the United States, called Federal Money.

DEDUCE.—To infer, or draw a conclusion from given premises. The method of reasoning is called deductive, and the conclusion is called a deduction.

DEGREE.—The 360th part of the circumference of a circle. A degree of latitude is the length of a portion of a meridian between two points, whose latitudes differ from each other by one degree. Owing to the spheroidal form of the earth, the length of a degree of latitude is different at different distances from the

equator. At 20° either north or south latitude, the length of a degree of latitude is 68.779 statute miles; at 25°, 68.821 miles; at 30°, 68.871; at 35°, 68.925; at 40°, 68.984; at 45°, 69.044; at 50°, 69.104. A degree of longitude is the 360th part of any circle of latitude. The length of a degree of longitude varies with the length of the circles of latitude from the equator, where it is greatest, to the poles, where it is nothing. For the length of a degree of longitude at different points, see Longitude, under Weights and Measures.

DENARY Scale.—A uniform scale whose ratio is ten.

DENOMINATE Number.—A number whose unit of measure is a concrete quantity, as 7 feet, 125 pounds, $40, etc. A simple denominate number refers to units of only one kind or value, as 185 bushels, 45 pounds, etc. A compound denominate number refers to units of different values but of the same variety or application, as 5 lb. 6 oz., 10 hrs. 15 min. 30 sec., etc. For the tables relating to denominate numbers, see under Weights and Measures. The percentage of denominate numbers may be obtained by reducing them to the lowest denomination, or to the decimal of the highest, and then proceed as in simple numbers.

DENOMINATOR.—That term of a fraction which indicates the value of the fractional unit, as 8 in the fraction 3/8, indicating that the fractional unit is 1/8. Multiplying the denominator divides the fraction, and dividing it multiplies the fraction. The denominator of a decimal fraction is generally suppressed.

DESCENDING Series.—One in which each term is numerically less than the preceding one, as 8 : 4 : 2 : 1 : etc.

DIAGONAL.—A straight line joining the vertices of two angles of a polygon, which are not adjacent, as AC and AD in the polygon ABCDE.

DIAL.—An instrument for determining the hour of the day, by means of a shadow cast by the sun. In the construction of a dial, the sun's apparent motion is supposed to be uniform throughout the day, and to take place in a circle whose plane is parallel to the equator.

DIAMETER.—For definition and rules for finding, see Circle. The following table gives the diameters, areas, and circumferences of circles and sides of squares whose areas coincide with those of the circles. By combining and multiplying, the area of any circle having diameter greater than 10 can also be found.

Diam.	Circum.	Area.	Side of Eq. Sq.
1.00	3.141592	0.78539	0.88622
1.25	3.926990	1.227184	1.10778
1.50	4.712388	1.767145	1.32934
1.75	5.497787	2.405281	1.55089
2.00	6.283185	3.141592	1.77245
2.25	7.068583	3.976078	1.99401
2.50	7.853981	4.908738	2.21556
2.75	8.639379	5.939573	2.43712
3.00	9.424777	7.068583	2.65868
3.25	10.210176	8.295768	2.88023
3.50	10.995574	9.621127	3.10179
3.75	11.780972	11.044661	3.32335
4.00	12.566370	12.566370	3.54490
4.25	13.351768	14.186254	3.76646
4.5	14.137166	15.904312	3.98802
4.75	14.922565	17.720546	4.20957
5.00	15.707963	19.634954	4.43113
5.25	16.493361	21.647536	4.65269
5.50	17.278759	23.758294	4.87424
5.75	18.064157	25.967228	5.09580
6.00	18.849555	28.274333	5.31736

Diam.	Circum.	Area	Side of Eq. Sq.
6.25	19.634954	30.679615	5.53891
6.50	20.420352	33.183072	5.76047
6.75	21.205750	35.784703	5.98203
7.00	21.991144	38.484560	6.20358
7.25	22.776546	41.282490	6.42514
7.50	23.561994	44.178646	6.64670
7.75	24.347343	47.172977	6.86825
8.00	25.132741	50.265482	7.08981
8.25	25.918139	53.456162	7.31137
8.50	26.703537	56.745017	7.53292
8.75	27.488935	60.132046	7.75448
9.00	28.274333	63.617251	7.97604
9.25	29.059732	67.200630	8.19759
9.50	29.845130	70.882184	8.41915
9.75	30.630528	74.661912	8.64071
10.00	31.415926	78.539816	8.86226

DIFFERENCE.—The result obtained from subtracting one sum from another. It is generally understood that the less quantity is to be taken from the greater, but the greater may be taken from the less, the result being a negative quantity.

DIGITS.—The ten characters, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, by the aid of which all numbers are expressed.

DIMENSION.—Extension in one direction. Every body has three dimensions, length, breadth, and height, or thickness. A line is extended in one direction, and a surface in two directions.

DISCOUNT.—Allowance made for the payment of money before it is due. The actual amount to be paid is called the present value, and the difference between the amount specified and the present value, is the discount. **Bank** discount is discount on the entire principal. The proceeds are the principal less the bank discount. **True** discount is discount on such a sum of money as would amount to the face of the note, if put at interest at the given rate and for the given time. The present worth is the principal amount less the true discount. **Mercantile** discount is any allowance or per cent off. **To compute** bank discount, Multiply the amount by ⅙ the number of days, including the day of discount and the three days of grace, and in the product point off three decimals. This will give the interest at 6%. For any other rate, add or subtract in proportion as the given rate is greater or less than 6%. **To find** true discount, Divide the amount by 1.00 plus the product of the rate and time; the quotient will be the present worth; subtract this from the amount, and the remainder will be the true discount. (See Compound Interest Tables).

DIVIDEND.—A quantity which is to be divided by another, called the divisor.

DIVISION.—The operation of finding from two quantities a third, which multiplied by the first shall produce the second. The first is called the divisor, the second, the dividend, and the third, the quotient. Any part left undivided, is called the **remainder. To prove** the accuracy of the operation, (1) Multiply the divisor by the quotient, adding in the remainder, if any; the result should equal the dividend. (2) Add the excess of 9's in the remainder to the excess of 9's in the product of the excess in the divisor, multiplied by the excess in the quotient (without the remainder or fractional part). The excess of 9's in this sum of excesses should equal the excess of 9's in the dividend. **Contractions.—To divide** by 10, 100, 1000, etc., Cut off from the right-hand of the dividend as many figures as there are ciphers in the divisor, or remove the decimal point as many places toward the left as there are ciphers in the divisor. **To divide** by a composite number, as 36 (9x4), 360 (9x4x10), etc., Divide first by one of the factors, and the resulting quotient by another factor, and proceed thus till all the factors have been used. **Example.**—Divide 21073 by 96, using factors 8, 4, and 3.

193) 74020 (383
579
1612
1544
680
579
101

Excess of 9's in rem. = 2
Excess in divisor = 4
" quot. = 5
" prod. (5x4) = 2
Sum of excesses = 4
Excess in dividend = 4

Operation.

8	21073	
4	2634	Rem. 1 = 1 unit of 1st dividend.
3	658	Rem. 2 (2x8) 16 " " "
	219	Rem. 1 (1x4x8) = 32 " " "

Hence true Rem. = 49

DIVISOR.—That factor in division by which the dividend is to be divided. Any number is divisible by 2 or 5 if the last figure is divisible by 2 or 5; it is divisible by 4 or 25 if the last two figures are divisible by 4 or 25; it is divisible by 8 or 125 if the last three figures are divisible by 8 or 125; it is divisible by 3 or by 9 if the sum of its figures is divisible by 3 or by 9.

DODECAGON.—A polygon of twelve sides or twelve angles. **To** inscribe a regular dodecagon in a circle, apply the radius six times to the circumference as a chord; bisect the arcs subtended by the chords, and join each of the points of bisection with the vertices of the consecutive angles formed by the chords.

DOLLAR.—A silver coin of the United States whose value is 100 cents or 10 dimes. The original form of the sign $ was probably a barred S, $ signifying S. As, the divisions of the Spanish Dollar, adopted as the basis of the United States coinage. Some regard the sign as a monogram of the letters U.S.

DRY MEASURE.—Used for measuring articles not liquid, as salt, fruit, grain, etc. For table see under Weights and Measures.

DUODECIMAL.—A system of numbers whose scale is 12, the unit of each order being equal to twelve times a unit of the next lower order. The system is used by artificers in estimating the superficial and solid contents of their work. The following table gives the names of the units:

12 fourths (''''') .. make 1 third, marked '''
12 thirds ..... " 1 second, " ''
12 seconds ..... " 1 inch (prime) " '
12 inches (primes) " 1 foot ..... " ft.

Duodecimals may be added, subtracted, multiplied, or divided, like compound numbers, but are chiefly used in multiplication. **To multiply** duodecimals, Write the multiplier under the multiplicand, placing units of the same order in column. Multiply, first by the feet, next by the inches, and so on, recollecting that the product will be of that denomination denoted by the sum of their indices. Add the several partial products together, and their sum will be the required product. **Example.**—How many sq. ft. in a board 9 ft. 5 in. long, and 2 ft. 8 in. wide?

Operation.

9 ft.	5′	5′x2 ft. = 10 in. = 5/12 x 2;
2 ft.	8′	9 ft. x 2 ft. = 18 sq. ft.
18	10′	
6	3′ 4″	5′x8′ = 40″ = 3′ 4″ = 5/12 x 8/12;
25 sq. ft.	1′ 4″	9 ft. x 8′ = 72′ = 6 ft. = 9 x 8/12.

ECCENTRIC.—Two spheres, spheroids, circles, or ellipses, are said to be eccentric, when one lies within the other, but has not the same centre. The term is opposed to concentric.

EDGE.—The line in which two faces of a polyedral angle meet each other. The edge of a polyhedron, is the line in which two adjacent faces meet each other.

ELLIPSE.—A curved line having two centres, called its foci, and two diameters, called its major

and minor axes. The sum of the distances from any point in it to two fixed points is equal to the longest diameter, which diameter passes through those points. Thus EF + EG = AB. The points F and G are the foci; the point O is the centre of the ellipse. **To find** the area of an ellipse, Multiply the product of the longer and shorter diameters by .7854.

EQUIANGULAR.—Having all the angles equal, as a square.

EQUILATERAL.—Having all the sides equal, as a square.

EQUATION OF ACCOUNTS.—The process of finding at what time the balance of an account can be paid without loss to either debtor or creditor. (It is also called "Averaging of Accounts" and "Compound Equation of Payments"). **To find** the equated time, Assume the earliest date upon which any item of the account becomes due to be the time of maturity for all of the items. Multiply each item by the number of days intervening between this assumed date and the date upon which it becomes due, and find the sum of these products on each side of the account. Then divide the difference between the sums of the debit and credit products by the balance of the account; the quotient will be the time for consideration or average term of credit. When the difference of products and the balance of the account fall on the same side count forward; when on opposite sides count backward; that is, when the balance of account and balance of interest or discount go to the same party count backward; when they go to opposite parties count forward. **Example.**

Dr.			Cr.		
Due.	$		Due	$	
July 3, 1870, 200 x	2 =	440	July 1, 1870, 200 x	0 =	
Oct. 1, " 125 x	92 =	11500	Oct. 3, " 150 x	94-14 =	14100
Nov. 15, " 200 x	137 =	27400	Dec. 20, " 300 x	172-51 =	60900
Feb. 24, 1871, 140 x	238 =	33320		$ 650	75000
Apr. 1, " 190 x	274 =	52060			
	$ 875	124720	59020 ÷ 225 = 262		
	650	65700	262 days from July 1,		
	$ 225	59020	1870, is March 20, 1871.		

EQUATION OF PAYMENTS.—See Average of Payments.

EVEN NUMBER.—Any number divisible by 2, as 4, 10, 18, etc.

EVOLUTION.—The process of finding one of several equal factors of a product. It is also called extracting the root of a power. It is opposed to involution. (See Cube Root and Square Root).

EXAMPLE.—An individual or single application of a general principle or rule, generally given to illustrate the nature of the rule or its mode of application.

EXCHANGE.—For definition, see under Business Forms. **To find** the cost of a draft at sight, Add the premium to the face of the draft, or subtract the discount. **Example.**—How much must be paid for a draft of $1000 on New York at a premium of 1½%?

1½% of $1000 = $15 premium.
1000 face of draft.
$1015 total cost.

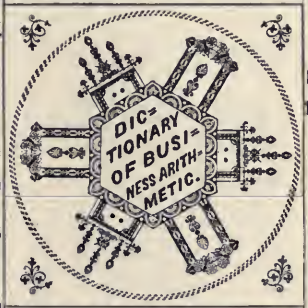
To find the face of a draft, the cost and rate being given, Divide the cost by $1 plus the rate of premium, or $1 minus the rate of discount. **Example.**—A draft was purchased on Chicago for $3226.05, at a premium of ½%, and another on Denver for $2397.88, at a discount of ¾%. What was the face of each?

1.00 + .005 = 1.005) 3226.05 ($3210 face of draft on Chicago.

1.00 − .0075 = .9925) 2397.88 ($2416 face of draft on Denver.

(See Foreign Exchange).

EXPECTATION.—The value of any chance which depends upon some contingent event. Thus,



if a person is to receive the sum of $200 upon the occurrence of an event which has an equal chance of happening or failing, the expectation of the sum is worth $100. If there are three chances of the event's failing, and only one of its happening, the expectation is worth only $50. **Expectation of Life.**—A phrase applied to the average duration of life after any given age as determined by the tables of mortality. If it is found from a great number of recorded examples, that of all the individuals who reach the age of 30, the average remaining period of existence is 34.34 years, then is the expectation of life at that age 34.34 years. (See Carlisle Table of Mortality, under Weights and Measures).

EXTRACTION OF ROOTS.—The process of finding a quantity, which being taken as a factor a certain number of times, will produce a given quantity. (See Cube Root and Square Root).

EXTREME.—In a proportion, the first and last terms are called extremes, the remaining two the means. When the proportion has but three different terms, the middle one is a geometrical mean, or a mean proportional between the extremes. In the proportion

3 : 9 :: 4 : 12,

3 and 12 are the extremes, also in the proportion

3 : 6 :: 6 : 12,

3 and 12 are extremes, and 6 is a mean proportional between them. In a geometrical progression, any term is a mean proportional between the preceding and succeeding term, and if there is an odd number of terms, the middle one is a mean proportional between the extremes. Also the product of the two extremes is equal to the product of any two means equally distant from the extremes. In an arithmetical progression, the sum of the extremes is equal to the sum of any pair of terms which are situated at equal distances from the extremes. The sum of the progression is equal to the half sum of the extremes multiplied by the number of terms.

FACE.—The plane surface of any solid.

FACTOR.—A quantity which will divide another is said to be a factor of it. To resolve a quantity into its factors, is to find two or more quantities, which when multiplied together, will produce the given quantity; thus the factors of 42 are 2, 3, and 7. The prime factors of a quantity are those factors which cannot be exactly divided by any other quantity except 1, which is a prime factor of every number. The process of resolving numbers into their factors is called factoring. **To resolve** a number into its prime factors, Divide the given number by any prime number that will exactly divide it; divide the quotient in the same manner, and so continue to divide, until a quotient is obtained which is a prime number, the last quotient and the several divisors will constitute the prime factors of the given number. (See Divisor).

Operation.	
2	1216
2	1 08
	2)54
	3)27
	3)9
	3

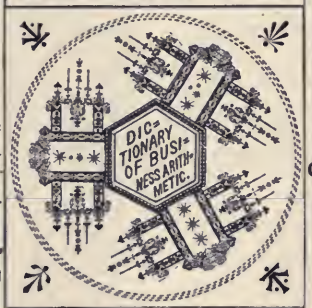
FALLING BODIES.—In falling from a height, a body will fall 16 feet the first second, three times that distance in the second, and so on, the space passed over in each successive second increasing as the odd numbers, 1, 3, 5, 7, 9, 11, etc. The entire space passed over is as the square of the time. **To find** the height from which a body falls, Multiply the square of the time occupied in falling by 16, and the product will be the height.

FIGURE.—A character employed to represent numbers. The following are the Arabic figures: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. By proper combination these are sufficient to represent every possible number. (See Notation).

FOOT.—A linear measure whose length is 12 inches. In other than English speaking nations, the foot varies from this.

FOREIGN EXCHANGE.—Bills of Exchange are generally drawn in the money of the country in which they are made payable. (See Coin, under Weights and Measures, also Bill, under Business Forms and Terms). **To find** the value of sterling (English) money, Reduce the shillings and pence, if any, to the decimal of a pound, and multiply by the given rate per pound. (See Sterling Money). **To change** U.S. money to Sterling, Divide the given amount by the value of £1 at the given rate. Reduce the remainder, or the decimals in the quotient, if any, to shillings and pence.

FRACTION.—One or more of the equal parts of 1. One of the equal parts is called a fractional unit; thus in the fraction ⅞, ⅛ is the fractional unit. Fractions are either common (vulgar) or decimal. For the explanation of decimal fractions, see Decimal. Common fractions are those in which the denominator is expressed, and may be any quantity. They are written in the form ¾, which denotes that the quantity ¼ is taken 3 times. The parts 3 and 4 are called terms of the fraction, 3 being the numerator, and shows how many parts are taken; 4 is the denominator, and shows into how many parts the unit is divided. A proper fraction is one in which the numerator is less than the denominator, as ¾. An improper fraction is one in which the numerator is greater than the denominator, as ⅞. A mixed fraction is an expression composed of two parts, one part being entire, and the other fractional, as 4½. Multiplying the numerator of a fraction, multiplies the fraction. Dividing the numerator of a fraction, divides the fraction. Multiplying the denominator of a fraction, divides the fraction. Dividing the denominator of a fraction, multiplies the fraction. Multiplying or dividing both terms of a fraction by the same number, does not alter its value. **To reduce** a fraction to its lowest terms, Divide both terms by any common factor; divide the resulting fraction in the same manner, and so on till no number greater than 1 will exactly divide both terms. Or, Divide both terms by their greatest common divisor. **To reduce** an improper fraction to a whole or mixed number, Divide the numerator by the denominator. **To reduce** a whole or mixed number to an improper fraction, Multiply the whole number by the denominator of the fraction; add the numerator to the product, and write the sum over the denominator. **To reduce** a whole number to a fraction having a given denominator, Multiply together the whole number and the denominator, and write the denominator beneath the product. **To reduce** a compound fraction to a simple one, see Compound Fraction. **To reduce** fractions of different denominators to equivalent fractions having a common denominator, Multiply both terms of each fraction by the product of all the denominators except its own. **To reduce** fractions of different denominators to equivalent fractions having the least common denominator, Find the least



common multiple of the denominators of the given fractions, and multiply both terms of each fraction by the quotient of the least common multiple, divided by the denominator of the fraction. **To add** fractions, Reduce them to a common denominator; then add their numerators, and place the sum over the common denominator. **To subtract** fractions, Reduce them to a common denominator, find the difference between their numerators, and place it over the common denominator. **To multiply** a fraction by a fraction, Multiply together the numerators for a new numerator, and the denominators for a new denominator. **To multiply** a fraction by a whole number, or a whole number by a fraction, Write 1 under the whole number for a denominator, and proceed as in last rule. **To divide** a fraction by a fraction, Invert the divisor; multiply the numerators together for a new numerator, and the denominators for a new denominator. **To divide** a whole number by a fraction, or a fraction by a whole number, Write 1 under the whole number for a denominator, and proceed as in last rule. **To reduce** a complex fraction to a simple fraction, see Complex Fraction.

FRUSTRUM.—A piece or part of a solid separated from the rest, as the frustrum of a pyramid or cone. **To find** the solidity of a frustrum, see Cone.

FURLONG.—A linear unit of length equal to 660 feet or ⅛ of a mile.

GAUGING.—The operation of finding the contents of casks and vessels of any form. **Ullage** is the difference between the actual contents of a vessel and its capacity, or that part which is empty. **To find** the contents of a cylindrical vessel, Find the contents in cubic inches (see Cylinder), and divide by 2150.42 for the measurement in bushels; by 282 for beer gallons, and by 231 for wine gallons. **To find** the contents of a cask, see Cask. **To find** the contents of ullage casks, when the cask is standing, Find one-third the sum of the head, mean, and bung diameters, and square the result; multiply by the height of the fluid in inches, and that product by .0034 for wine gallons, and by .0028 for beer gallons.

GENERAL AVERAGE.—For definition, see under Business Terms. To make a claim for General Average valid, three considerations are necessary: (1) An imminent common peril and a necessity for some sacrifice; (2) A voluntary sacrifice of a part to save the rest; (3) The success of the effort to save a part, as a result of the sacrifice made. **To find** General Average, Divide the total loss subject to average by the sum of the values of the contributory interests, and multiply each interest by the per cent. thus found.

GEODESY.—That branch of Surveying in which the curvature of the earth is taken into account.

GEOMETRICAL PROGRESSION.—See Progression.

GEOMETRY.—That branch of Mathematics which treats of the relation, properties, and measurement of solids, surfaces, lines, and angles.

GOLDEN NUMBER.—The number denoting the year of the cycle of 19 years, in which the year in question falls. **To find** the golden number for any year, Add 1 to its number in the Christian year, and divide the sum by 19, the remainder is the golden number of the year, unless the remainder is 0, in which case the golden number is 19; thus 1854+1=1855;

dividing 1855 by 19, the remainder is 12; hence, 12 is the golden number required.

GOLDEN RULE.—A name sometimes given to the Rule of Three, on account of its great practical value and universal use. (See Rule of Three).

GRAIN MEASURE.—**To find** the quantity of grain in a bin, wagon-bed, etc., Multiply the height, length, and breadth together, in inches, and divide by 2150.42; the quotient will be the number of bushels. **To find** the quantity of grain when heaped on the floor in the form of a cone — Square the depth and square the slant height, in inches; take their difference and multiply by the depth, and this product by .0005, the result will be the number of bushels. **To find** the quantity of grain when heaped against a straight wall, Square one-half the depth, and proceed as in last rule. (See Apples, Bushel, and Corn).

GREATEST COMMON DIVISOR.—See Common Divisor.

GUNTER'S CHAIN.—A chain used for the purposes of land surveying. It is 4 rods or 66 feet in length, divided into 100 links, each link 7.92 inches in length, every tenth one being marked, for convenience in counting. The advantage of this mode of division is, that a square chain or a square link is a decimal fraction of an acre, and if the area of a piece of ground be found in square chains and links, it may at once be converted into acres by pointing off a suitable number of decimal places.

HAY.—**To find** the amount of hay in a mow or stack, Find the number of cubic feet, and divide by the number of cubic feet in a ton, as given under Hay, under Weights and Measures.

HECTO-GRAMME.—A French weight of 100 grammes, equal to 3.oz. 8 drams 11.9848 grains Avoirdupois.

HECTO-LITRE.—A French measure containing 100 litres, equal to 26 gallons 3 pints.

HECTOMETRE.—A French measure containing 100 metres, equal to 19 rods 4 yards 2 feet 7.019 inches.

HEIGHT.—Any distance estimated or measured upwards.

HEMISPHERE.—One of the two equal parts of a sphere, made by passing a plane through its centre.

HEPTAGON.—A polygon of seven angles, or seven sides. **To construct** a regular heptagon, Divide the circumference of a circle into seven equal parts, and draw the chord subtending each arc.

HEXAGONAL.—Having six angles.

HEXAGON.—A polygon of six angles or sides. **To inscribe** a regular hexagon in a circle, Apply the radius six times as a chord, the resulting figure will be a regular hexagon.

HEXAHEDRON.—A polyhedron of six faces, the same as a cube.

HOGSHEAD.—A measure of capacity, equivalent to 63 gallons of wine, or 54 gallons of beer. When used for tobacco, it varies in the different States from 750 to 1200 pounds.

HORIZONTAL.—Parallel to the horizon. A horizontal line is one parallel to the horizon, or to the surface of still water.

HOUR.—A period of time equal to one-twenty-fourth part of a day, or 60 minutes.

HYPOTHENUSE.—The side of a right-angled triangle opposite the right angle, as AC. In a plane triangle the square described upon the hypothenuse is equivalent

to the sum of the squares described upon the other two sides.

IMPROPER FRACTION.—A fraction whose denominator is less than its numerator, as 9/8. (See Fraction).

INCH.—A measure of length equal to the twelfth part of a foot. The length of a simple pendulum, which beats seconds in the Tower of London, is taken as the unit, and an inch is 39.13908 of this. This is, in the City Hall of New York, equal to 39.10120 of a simple seconds pendulum. The length of the seconds pendulum serves as the basis of a system of weights and measures.

INCLINED PLANE.—A rigid surface, sloping at an angle between the horizontal and vertical. **To find** the weight which can be raised on the inclined plane, Multiply the power by the length of the inclined plane, and divide the product by its perpendicular height.

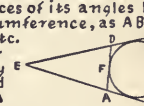
INCOMMENSURABLE.—With respect to each other, two quantities of the same kind are incommensurable when they do not have a common unit; i.e., when there is no quantity so small that it will be contained in both an exact number of times. Thus, the diagonal and the side of a square are incommensurable.

INDEFINITE.—Unlimited or unbounded. A line is indefinite if it is not limited by points, and space is indefinite in all directions, unless limited by a surface. When the number of terms in a series is unlimited, as 4, 7, 10, etc., *ad infinitum*, it is called an indefinite series.

INDEX.—A number written over the radical sign to denote the degree of the root to be extracted. Thus, 3 in the above $\sqrt[3]{125}$ denotes that the cube root of 125 is to be extracted.

INFINITY.—A term used to express a quantity greater than any assignable quantity of the same kind. It is also the limit or last term of the series of natural numbers in an arithmetical progression. It is designated by the symbol ∞.

INSCRIBE.—To draw within, as one figure within another. A straight line is inscribed in a circle when its two extremities lie in the circumference, as AB in the circle ABCOD. An angle is inscribed when its vertex lies in the circumference, and when its sides form chords of the circle, as ABC, BCD, etc. A polygon is inscribed in a circle when all the vertices of its angles lie in the circumference, as ABCD, ABC, BCD, etc.



All regular polygons may be inscribed in a circle. A quadrilateral may be inscribed when the sum of any two opposite angles is equal to 180°. A circle is inscribed in a triangle or other polygon, when it is tangent to every side of the polygon, as the circle FGH in the polygons ECB and ABCD. A circle can always be inscribed in any triangle, and in any quadrilateral, when the sum of two opposite sides is equal to the sum of the other two opposite sides. The *square* and *rhombus* are the only parallelograms in which a circle can be inscribed. A polyhedron may be inscribed in a sphere, when the surface of the sphere passes through all its vertices. A sphere may be inscribed in any regular polyhedron, and also in any triangular pyramid. **To find** the side of an *inscribed equilateral triangle*, Multiply the diameter by .866025, or the circumference by .275664. **To find**

the side of an *inscribed square*. Multiply the diameter by .707106, or the circumference by .225079.

INSURANCE.—For definitions, see under Business Terms. The *amount of insurance* corresponds to the *base* (in Percentage), the *rate of premium* to the *per cent.*, and the *premium* to the *percentage*. **To find** the face value of a policy that shall insure both the property and the premiums, Divide the amount of insurance required on the property by the difference per cent. of the rate of insurance. Most of the ordinary problems referring to insurance are simple problems in percentage, and require no further explanation.

INTEGER.—A whole number, as 3, 7, 20, etc., as distinguished from a fraction.

INTEREST.—Compensation for the use of money or value. The sum for the use of which interest is paid, is the *Principal*. The number of hundredths of the principal that is paid for its use, is the *Rate*; as 6% is 6/100. The sum of the principal and interest, is the *Amount*. Interest on the principal only, is *Simple Interest*. Interest on the principal and on interest for a previous period, is *Compound Interest*.—Interest computed by the rate established by law, is *Legal Interest*. Interest greater than legal interest, and prohibited by law, is *Usury*. When no rate is mentioned, the legal rate is always understood. (For the legal rate in the different States, see under Statistical Bureau of the United States). **To find** the time between two dates, omit the day of the date and include the day of maturity. (See Business Time Tables; see also Time, under Business Terms). For a quick and easy method of computing simple interest, without the use of fractions, see Instantaneous Method of Computing Interest. From this method, the interest on any sum, for any time and rate, may be found by simply adding the results obtained mentally from the tables. **To find** the interest at any rate per cent. per annum for any given time, Multiply the principal by the rate, expressed as a decimal; the product will be the interest for 1 year. Multiply this interest by the time expressed in years and fractions of a year; the result will be the interest required. *Or*, Find the interest for the years as above, and take aliquot parts for the months and days. The following brief rules may be preferred by some persons: At *4 per cent.*, Multiply the principal by the number of days, cut off the right-hand figure and divide by 9. At *5 per cent.*, Multiply by the number of days and divide by 72. At *6 per cent.*, Multiply by by the number of days; cut off the right-hand figure and divide by 6. At *8 per cent.*, Multiply by the number of days and divide by 45. At *9 per cent.*, Multiply by the number of days; cut off the right-hand figure and divide by 4. At *10 per cent.*, Multiply by the number of days and divide by 36. For time at which money doubles at different rates of interest, see Time at which Money Doubles, etc., under Weights and Measures. **To find** the *Principal*, when the time, rate per cent., and interest are given, Divide the given interest by the interest on ONE DOLLAR for the given rate and time. **To find** the *Rate* per cent., when the principal, time, and interest are given, Divide the given interest by the interest on the principal at ONE per cent. **To find** the *Time*, when the principal, rate, and interest are given, Divide the given interest by the interest on the principal for ONE DAY; the quotient will be the required time, in days. **To find** the *Principal*, when the time, rate, and amount are given, Divide the given amount by the amount of ONE DOLLAR for the given rate and time.

INTERIOR.—Lying on the inner side. An *interior angle* of a polygon is an angle included between two adjacent sides and lying within the polygon.

INTERMEDIATE TERMS.—In a progression, all the terms except the first and last, which are called extremes.

INTERSECT.—To pass through or cut each other. Two lines intersect when they cross each other, and have one point in common. Two surfaces intersect when they cut each other, and have a line, or lines, in common.

INVERSE.—Two processes or operations are said to be *inverse*, when one is exactly contrary to the other, or when being performed in succession upon a given quantity, the result will be that quantity; as Addition and Subtraction are inverse operations. For *Inverse Proportion*, see Proportion.

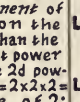
INVERSION.—The act or operation of changing the order of the terms. Thus, in the proportion, 3 : 9 :: 5 : 15, by inversion it is 9 : 3 :: 15 : 5. For *Inversion of Series*, see Series.

INVERT.—To turn or place in a contrary position. Thus the fraction 3/4 becomes 4/3 when inverted.

INVESTMENTS AND DIVIDENDS. **To find** what rate of income will be derived from any given investment, Multiply the income by 100, and divide the product by the amount invested. **To find** the rate of dividend, Multiply the dividend by 100, and divide by the par value of the stock. **To find** what rate must be obtained, that a given sum invested may bring a given income, Multiply the given income by 100, and divide the product by the sum invested. **To find** the dividend on any given number of shares of stock, Multiply the par value of the stock by the rate of dividend, and divide the product by 100. **To find** what must be paid for stock purchased through a broker, Multiply the bonds or shares by the rate, and add the brokerage. If purchased on a credit of more than 3 days, add interest for the whole time. **To find** what sum must be invested that a given income may be obtained, Divide the required income by the rate of income per share, or per $100, for the number of shares or bonds required, and multiply the quotient by the given price. To find the par value, when the premium or discount is given, Divide the given value of the stock by 1 increased by the rate per cent. of premium, or diminished by the rate per cent. of discount. The following table shows the rate of interest received on Stocks purchased from 25% discount to 25% premium:

Purchase Price.	RATE RECEIVED ON STOCK BEARING INT. AT 5%	6%	7%	8%	10%
75.	6.666	8.000	9.333	10.666	13.333
80.	6.250	7.500	8.750	10.000	12.500
85.	5.882	7.143	8.235	9.411	11.764
90.	5.555	6.666	7.777	8.888	11.111
95.	5.263	6.316	7.263	8.421	10.526
97.5	5.128	6.156	7.179	8.205	10.256
100.	5.000	6.000	7.000	8.000	10.000
105.	4.761	5.714	6.666	7.619	9.523
110.	4.545	5.454	6.363	7.272	9.090
115.	4.347	5.130	6.086	6.956	8.695
120.	4.166	5.000	5.833	6.666	8.333
125.	4.000	4.800	5.600	6.400	8.000

INVOLUTION.—Operation of finding any power of a given quantity. It is the reverse of evolution, and is performed by continued multiplication. **A** *power* **is the product obtained by involution. The** *root*, **or** *first power*, **is the number multiplied. The** *different* **powers derive their name from the number of times the root is taken as a factor. The number denoting the power to which the root is to be raised, is the** *index* **or** *exponent* **of the power. It is placed on the right a little higher than the root. Thus, $2^1=2$, the 1st power of 2; $2^2=2\times2=4$, the 2d power, or *square*, of 2; $2^3=2\times2\times2=8$, the 3d power, or *cube*, of 2; $2^4=2\times2\times2\times2=16$, the 4th power of 2; etc. To find any given power of a number, Multiply the number by itself, till it is used as a factor as many times as there are units in the index of the power.**



ISOSCELES.—A term applied to a triangle, when two of its sides are equal. Thus, in the triangle ABC, AB and AC being equal, the triangle is *isosceles*. In an isosceles triangle, the angles opposite the equal sides are equal, and a line drawn from the vertex of the equal sides, to the middle point of the base, is perpendicular to the base, it bisecting the base, and also the angle at the vertex.

KILO-GRAMME.—A French weight of 1000 grammes, equal to 2⅕ pounds avoirdupois.

KILO-LITRE.—A French measure of 1000 litres, equal to 264 gallons 1 pint 1.9638 gills.

KILO-METRE.—A French measure of 1000 metres, equal to about ⅝ of a mile.

LATERAL.—Relating to the side. The lateral faces of a prism are those which have a side lying in the perimeter of each base: the lateral faces of a pyramid are those which meet at the vertex.

LATITUDE.—The angular distance of a place, on the surface of the earth, from the equator, measured on the meridian of the place. (See Degree).

LEAST COMMON MULTIPLE.—The *least* common multiple of two or more numbers, is the *least* number that can be divided by *each* without a remainder. Thus 35 is the *least* common multiple of 5 and 7. **To find** the least common multiple of two or more numbers, **Write** the numbers in a line, and divide by any prime divisor of two or more of them, writing the quotients and undivided numbers underneath. Divide these resulting numbers by any prime divisor of two or more of them, and so continue until no two of the resulting numbers have a common prime divisor. The product of the divisors and the last resulting numbers will be the least common multiple required. **To find** the least common multiple of several fractions, Reduce them to their lowest terms; then write the L.C.M. of their numerators over the G.C.D. of their denominators.

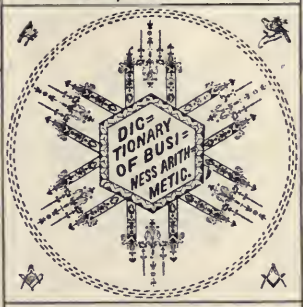
2	4	10	12	14	
2	2	5	6	7	
	1	5	3	7	

$2\times2\times5\times3\times7=420=$L.C.M.

LENGTH.—One of the three attributes of extension, generally the greatest horizontal dimension of a body.

LEVEL.—A surface is said to be *level* when it is concentric with, or parallel to, the surface of the sea.

LEVER.—A solid bar turning upon a pivot, which is called its *fulcrum*. **To find** the weight which can be moved by a lever, no account being taken of the weight of the lever, Multiply the power by its distance from the fulcrum, and divide by the distance of the weight from the fulcrum.



LIFE.—Of 100 lives, equally good, any one may expect to live till 50 are deceased. This period is called the *probable* life. The mean duration of life is found from the tables of mortality, which give out of a certain number born, the number living at each successive birthday. (See Carlisle Table of Mortality, under Weights and Measures).

LIFE ANNUITY.—See Annuity. **To find** the final value of an annuity at simple interest, Multiply the interest on the annuity for 1 year by the number of years less 1, and this product by one-half the number of years. Then add the product of the annuity multiplied by the number of years. **Example.**—What will be the amount or final value of an annuity of $100 for 8 years at 6%? *Solution.*—Interest on $100 for 1 year = $6; $6\times7=42$; $42\times4=168$; $100\times8=800$; $168+800=$ $968 *Ans.* **To find** the present value of an annuity at simple interest, Find the final value of the annuity, and then find the present value of that amount. **To find** the final value of an annuity at compound interest, Multiply the amount of $1, as given in Table 4 (of the Compound Interest Tables), by the annuity; the product will be the final value. **To find** the present value of an annuity at compound interest, Multiply the present worth of $1, as given in Table 3 (of the Compound Interest Tables), by the given annuity. **To find** the present value of an annuity in reversion, Find the present worth of the final value of the annuity from the present time to the time it terminates. **Example.**—A father leaves an income of $500 per year to his son, to commence in 5 years and to continue for 10 years. What is the present worth of the legacy, at 6 per cent.? *Solution.*—By Table 3, present worth of $1 for 15 yrs., $9.7122
" " $1 " 5 " 4.2123
$5.4999
$5.4999\times500=$2749.94, *Ans.*

LINE.—A magnitude which has the attribute of extension, called *length*, but neither breadth nor thickness. **A** *straight line* is one which does not change its direction between any two of its points, as ———. **A** *curved line* is one which changes its direction at every one of its points, as ⌒. **A** *broken line* is one made up of limited straight lines lying in different directions, as ⌇.

LINEAR.—Relating to a line. **A** *linear unit* is a standard measure of length, as an *inch*, *foot*, *yard*, etc.

LINK.—A unit of measure equal to the hundredth part of Gunter's chain (which see), which is 7.92 inches.

LIQUID MEASURE.—Used for the measurement of liquids, such as liquors, molasses, water, etc. For Table, see under Weights and Measures.

LIQUIDS, PRESSURE OF.—**The** area (a) of the base of a regular vessel, the height (h) of the fluid in feet, and the weight (w) of a cubic foot of the fluid being given; required the pressure (p) in pounds on the bottom of the vessel: *Formula.*—$a\times h\times w=p$. **The** height (h) of a column of fluid in feet, and the weight of a cubic foot of the fluid being given; required the pressure (p) in pounds of the column per square inch: *Formula.*—$h\times w\div144=p$. **The** diameter in feet of the base (b) of a cylindrical reservoir, and the depth in feet (d) of fresh water

contained therein being given; required the pressure (p) in pounds upon the staves: *Formula.*—$b \times 3.1416 \times d \times (d+2) \times 62.5 = p$.

LITRE.—A French measure of capacity, whose volume is equal to a cube whose edge is $\frac{1}{10}$ of a metre, and whose capacity is $\frac{1}{1000}$ of a cubic metre. It is equal to 61.027+ cubic inches.

LOG, and **LOG-LINE.**—An instrument, of the nature of a float, having a line of about 150 fathoms attached, for determining the velocity of a ship when passing through the water.

LOGARITHMS, (log.).—Are indices of powers. Every number may be regarded as some power of 10, which is called the base, and logarithms are the indices of these powers of 10, most of them being proper or improper fractions. Thus the index or logarithm of 1000 is 3, that is, 1000 is the 3d power of 10; the log. of 251.19 is about 2.4 or $\frac{24}{10}$, that is, 251.19 is the 10th root of the 24th power of 10; $251.19 = 10^{\frac{24}{10}} = 10^{2.4}$.

LONGITUDE.—The arc of the equator intercepted between the meridian of a place, and the meridian of some other place from which longitude is reckoned. Longitude is generally reckoned from the meridian of Greenwich (near London), but sometimes from the meridian of Washington. For the length of a degree of longitude for each degree of latitude, and for converting longitude into time, and *vice versa*, see Longitude, under Weights and Measures.

LUMBER MEASURE.—See Board Measure.

MAGNITUDE.—Anything that can be increased or diminished, as a line, surface, number, angle, time, space, etc.

MARKING PRICES.—For method of marking goods, see Marking Goods, under Business Terms. **To change** the price of goods, marking them higher or lower, at a certain per cent on the old price, **Find** the difference between the old and new per cent. of gain or loss. Divide this by the old amount or difference per cent.; the quotient will be the per cent. advance or discount from the old price. Multiply the old price by the amount or difference per cent. just found, and the product will be the required price.—**Example.**—What advance or discount must be made on the price of cloth marked @ $2.60 to secure a profit of 26% or 14% if the present price affords a profit of 20%? What is the required price? *Ans.* { 5%. / $2.73 or $2.47.

Operation.

(.20~.26)÷1.20=.05; $2.60×1.05=$2.73.
(.20~.14)÷1.20=.05; $2.60×.95=$2.47.

MARINER'S MEASURE.—Used in measuring distances at sea. For Table, see under Weights and Measures.

MATHEMATICS.—That science which treats of the relations and measurement of quantities, and of the operations and processes, by means of which these relations are ascertained.

MEAN.—Lying between, as the mean of two quantities. An *Arithmetical mean*, or average of several quantities of the same kind, is their sum divided by their number. Thus the mean of 10, 12, 17, and 25 is $\frac{64}{4}$ or 16. A *geometrical mean* of two quantities, is the square root of their product: thus the geometrical mean of 2 and 8 is $\sqrt{16} = 4$. The *greater* of the given quantities is as many times greater than the *mean*, as the *mean* is

greater than the *less* quantity. In an arithmetical progression, each term is an arithmetical mean between the preceding and succeeding terms. In a geometrical progression, each term is a geometrical mean between the preceding and succeeding terms.

MEASURE.—The extent or value of a quantity, in terms of another quantity of the same kind, taken as a unit of measure. The measure of a line is the number of linear units, as feet, yards, etc., which it contains. The measure of a surface is the number of square units of surface, as square feet, square yards, etc., which it contains. The measure of a volume is the number of cubic units, as cubic feet, etc., which it contains. (See any particular measure in its alphabetic order, or under Weights and Measures).

MECHANICAL POWERS.—The mechanical powers are the *lever*, the *wheel and axle*, the *pulley*, the *inclined plane*, the *wedge*, and the *screw*. See each in its proper order.

MENSURATION.—That branch of applied geometry which relates to the computing of the length of lines, the area of surfaces, and the volume of solids. For information concerning any particular subject under Mensuration, refer to it under its appropriate title. The following list of titles will aid in reference:

Acute	Frustrum	Pyramid
Altitude	Gauging	Potatoes
Angle	Grain	Prism
Apples, etc.	Hay	Quadrilat'l
Arc	Height	Quantity
Area	Heptagon	Radius
Board Meas're	Hexagon	Rectilineal
Chord	Inscribe	Rhomboid
Circle	Lateral	Rhombus
Circumference	Length	Sector
Circular Ring	Lime	Segment
Cistern	Lumber	Solid
Cone	Mechanical	Sphere
Concentric	Nonagon	Square
Convex	Obtuse	Surface
Concave	Octagon	Trapezium
Corn	Parallel	Trapezoid
Cube	Parallelogr'm	Triangle
Cylinder	Parallelopip'n	Undecagon
Decagon	Pentagon	Vertex
Diameter	Perimeter	Volume
Dodecagon	Point	Weights, etc.
Ellipse	Polygon	Width
		Zone

MERIDIAN.—The meridian of a place, is the intersection of the surface of the earth, with a plane passing through the axis of the earth and the place. It is the same as a north and south line.

METRE.—A French measure of length, equivalent to the ten millionth part of the distance from the equator to the north pole, or about 39.37 inches.

METRIC SYSTEM.—The French system of denominate numbers, having for its fundamental unit the *Metre*, and having 10 as the constant ratio in its scale of notation. (See Metric System, under Weights and Measures).

MIDDLE.—In a straight line, the middle point is the point which is the same distance from the two extremities; in general, it implies equi-distant from the extremes.

MILL.—In the money of the United States, the unit of the lowest denomination, and is equal to the tenth part of a cent, or the thousandth part of a dollar.

MILLION.—A number written thus 1,000,000. It is a thousand thousand.

MINUEND.—In Subtraction, the quantity from which another is to be taken.

MINUS.—The sign of subtraction. It is a horizontal mark, thus −. The number at its right is taken from the one at its left.

MINUTE.—In time measure, the 60th part of an hour, or 1440th part of a day. In angular measure, the 60th part of a degree, or 5400th part of a right angle.

MIXED NUMBER OR QUANTITY.—A number or quantity consisting of both integral and fractional parts, as 10¼, or 10.25. All mixed numbers or quantities can be reduced to the form of simple fractions.

MOMENTUM.—The quantity of motion in a body. **To find** momentum, Multiply the weight by the velocity. Thus, the momentum of a body weighing 125 lbs. and moving at the rate of 80 feet per second, is 2000 lbs., i.e., it is equal to the momentum of a body weighing 2000 lbs. and moving one foot per second.

MONEY.—For table of U.S. Money, and for the value of foreign coins, see under Weights and Measures.

MONTH.—The twelfth part of a year. The number of days in each of the calendar months is shown in the Perpetual Calendar. The number of days from any day of any one month to the same day of any other month, is shown under Business Time Tables. A *lunar* month embraces the period between two consecutive new moons, and is about 29½ days in length. (See Time Table, under Weights and Measures).

MULTIPLE.—A *multiple* of any number is a number which it will exactly divide, as 24 is a multiple of 2, 3, 4, 6, 8, and 12. (See Least Common Multiple).

MULTIPLICAND.—In Multiplication, the quantity which is to be repeated or multiplied.

MULTIPLICATION.—The operation of finding the product of two quantities. The *product* is the quantity obtained by multiplying. The *multiplier* is the quantity denoting how many times the multiplicand is taken. The *multiplicand* is the quantity to be multiplied. **To prove** the accuracy of the operation, (1) Reverse the factors; (2) Divide the product by one of the factors; the quotient should be the other; (3) Find the excess of 9's in each of the factors, whether two or more. Then find the excess in the product of the excesses in the factors; this should equal the excess in the entire product. **Example.**—Multiply 23045 by 70800.

Operation.

23045	5 Excess.
70800	6 "
184360	30 3 "
161315	
Prod. 1631586000	3 "

Contractions.—**To multiply** by 10, 100, 1000, etc., Annex to the multiplicand as many ciphers as there are ciphers in the multiplier. **To multiply** by a convenient part of 10, 100, 1000, etc., as 3⅓, 12½, 16⅔, 33⅓, etc., Multiply by 10, 100, 1000, etc., and divide the product by the number of times the multiplier has been increased. Thus, to multiply 459 by 33⅓, annex two ciphers, and divide by 3. **To multiply** when the multiplier is 3 figures, 2 of which can be evenly divided by the third, then only two partial multiplications need be used. Thus, to multiply 47123 by 328 and by 832:

47123	47123
328	832
376984	376984
1507936	1507936
15456344	39208336

first multiply by 8 in each case, and then multiply that product by 4 (which is equivalent to multiplying the original number by 32). In multiplying by 8 in each case,

put the first figure of the product under the 8, and in multiplying by 4 (32), place the first figure of the product under the 2 of the 32. **To multiply** 2 figures by 11, Place the sum of the figures between the figures; thus, 45 x 11 = 495. **To multiply** by 5, Add one 0, and divide by 2; **to** multiply by 15, do the same, and then add the quotient to the dividend; **to** multiply by 25, add two 0's, and divide by 4; **to** multiply by 75, do the same, and then subtract the quotient from the dividend. **To multiply** by any number ending with 9, Multiply by the next higher number, and subtract the multiplicand.

MULTIPLIER.—In Multiplication, that factor of a product which indicates the number of times which the other factor is to be taken.

NAUTICAL.—Pertaining to navigation. A *nautical mile* is the 60th part of a degree of latitude; it is equal to 69⅛ English miles.

NEGATIVE.—A term applied to a quantity preceded by the *negative* or *minus sign*, thus −140. A result affected by the minus sign, is to be interpreted in a sense exactly contrary to what it would have been interpreted had it not been preceded by the minus sign, or by the positive sign (the plus sign +). The operations indicated by the signs + and − are diametrically opposed to each other, and if a quantity in any particular sense is considered positive, in the opposite sense it should be regarded as negative.

NINE.—Among the remarkable and valuable properties of the number 9, is that made use of in proving the accuracy of certain operations in arithmetic, by *casting out the 9's*, or by *finding the excess of 9's*. For an explanation of this property, see Addition, Subtraction, Multiplication, and Division.

NOTATION.—The art of representing or expressing mathematical quantities and operations by means of symbols. The two methods of expressing numbers, in general use, are the *Arabic* and the *Roman*. **Arabic Notation.**—By this method numbers are expressed by one or more of ten characters or *figures*. These are 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. **Roman Notation.**—By this method numbers are expressed by one or more of seven capital letters. These are I, denoting one; V, five; X, ten; L, fifty; C, one hundred; D, five hundred; M, one thousand. Repeating a letter repeats its value, as III = 3, etc. Annexing a letter to another letter of greater value, adds the two, VI denotes V + I = 6. Prefixing a letter to another of greater value, indicates their difference, as IV denotes V − I = 4. A dash or vinculum placed over a letter, denotes a thousandfold its value, as $\overline{V} = 5000$; $\overline{XXV} = 25{,}000$. The following table contains the principal combinations of Roman numerals:

TABLE.

I = 1	XVI = 16	C = 100
II = 2	XVII = 17	CX = 110
III = 3	XVIII = 18	CC = 200
IV = 4	XIX = 19	CCC = 300
V = 5	XX = 20	CD = 400
VI = 6	XXI = 21	D = 500
VII = 7	XXX = 30	DC = 600
VIII = 8	XXXV = 35	CM = 900
IX = 9	XL = 40	M = 1000
X = 10	L = 50	MD = 1500
XI = 11	LV = 55	MDC = 1600
XII = 12	LX = 60	MM = 2000
XIII = 13	LXX = 70	MMD = 2500
XIV = 14	LXXX = 80	$\overline{XX}$ = 20000
XV = 15	XC = 90	$\overline{M}$ = 1000000

NUMBER.—Quantity conceived as made up of parts, or the measure of the relation between quantities of the same kind, and answers to the question, "How many?" Thus, distance is a quantity; but if that distance is called 5, the notion is converted into number. A *number* is an expression for one or more units. An *integral number* consists of entire or whole units, as 1, 7, 16, etc. A *fractional number* consists of parts of units, as ½, ⅔, 1/13, etc. A *mixed number* consists of integral and fractional units being combined, as 4¼, 16⅓, etc. A *concrete or denominate* number consists of concrete units, as 1 pen, 6 oxen, 100 bushels, etc. An *abstract number* consists of abstract units, as 1, 5, 17, etc. A *simple number* consists of units of only one kind, as 10, 25 pounds, $75, etc. A *compound number* consists of units of different kinds, as 15 pounds 10 ounces, 2 miles 10 rods 6 feet 4 inches. A *prime number* is one which cannot be exactly divided by any other number except 1, as 11, 17, 1999, etc. A *composite number* is one consisting of the product of the factors of other numbers, as 4, 25, 192, etc.

NUMERALS.—The characters by means of which numbers are expressed, as *figures* in the Arabic notation, and *letters* in the Roman.

NUMERATION.—The art of reading numbers, when expressed by means of numerals. For the convenience of reading numbers, they are separated into periods of three places each as per table.

NUMERATION TABLE.

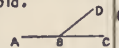
Period of Decill'ns.	Period of Nonill'ns.	Period of Octill'ns.	Period of Septill'ns.	Period of Sextill'ns.	Period of Quintill'ns.	Period of Quadrill'ns.	Period of Trillions.	Period of Billions.	Period of Millions.	Period of Thous'ds.	Period of Units.	Period Thous'ths.	Period of Mill'ths.	Period of Bill'ths.	Period of Trill'ths.	Period of Quadrill'ths.
Hundreds of Decillions	Hundreds of Nonillions	Hundreds of Octillions	Hundreds of Septillions	Hundreds of Sextillions	Hundreds of Quintillions	Hundreds of Quadrillions	Hundreds of Trillions	Hundreds of Billions	Hundreds of Millions	Hundreds of Thousands	Hundreds	Tenths	Hundredths	Thousandths	Tens of Thousandths	Hundreds of Thousandths	Millionths	Tens of Millionths	Hundreds of Millionths	Billionths	Tens of Billionths	Hundreds of Billionths	Trillionths	Tens of Trillionths	Hundreds of Trillionths	Quadrillionths
Tens of Decillions	Tens of Nonillions	Tens of Octillions	Tens of Septillions	Tens of Sextillions	Tens of Quintillions	Tens of Quadrillions	Tens of Trillions	Tens of Billions	Tens of Millions	Tens of Thousands	Tens	Hundredths	Thousandths	Ten Thousandths	Hundred Thousandths	Millionths	Ten Millionths	Hundred Millionths	Billionths	Ten Billionths	Hundred Billionths	Trillionths	Ten Trillionths	Hundred Trillionths	Quadrillionths	
Decillions	Nonillions	Octillions	Septillions	Sextillions	Quintillions	Quadrillions	Trillions	Billions	Millions	Thousands	Units	Thous'ths	Mill'ths	Bill'ths	Trill'ths	Quadrill'ths										
0	0	0	0	0	0	0	0	0	0	0	.0	0	0	0	0	0										

To read any number, Determine the order and name of each significant figure in the number to be read; then begin at the left hand and name the significant figures in each period, together with their relative unit value, and add the name of the period.

NUMERATOR.—The term of a fraction which indicates the number of fractional units that are taken. (See Fraction).

OBLATE.—Flattened or depressed. If an ellipse be revolved about its minor axis, the volume generated is called an *oblate spheroid*. The earth being flattened at the poles, and protruded at the equator, is in the form of an oblate spheroid.

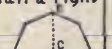
OBLIQUE.—Deviating from the perpendicular. Thus



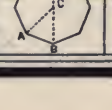
the line BD is oblique to the line AC. An *oblique angle* is one either greater or less than a right angle, the angles DBA and DBC both being oblique angles. An *oblique triangle* is one in which all the angles are oblique. An *oblique cylinder* or *cone* is one whose axis is oblique to the plane of its base.

OBLONG.—A rectangle whose adjacent sides are unequal. In general, any body or volume which is longer than it is wide.

OBTUSE.—Not pointed, sharp, or acute. An *obtuse angle* is an angle greater than a right angle, as ABD.



OCTAGON.—A polygon of eight sides or angles. A *regular octagon* is one whose sides and angles are respectively equal to each other. The angle at the center, ACB, is 45°, and the angle at the vertex of any angle, ACD, is 135°. The area of a regular octagon, whose side is 1, is equal to 4.8284271.



OCTAGONAL.—Pertaining to an octagon.

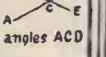
OCTANGULAR.—Having eight angles.

OCTANT.—The half of a quadrant, or the eighth part of a circumference of a circle.

ODD.—Not divisible by 2 without a remainder. The alternate numbers beginning at 1, as 1, 3, 5, 7, etc., form the series of odd numbers.

OPERATION.—Something to be done, as a transformation to be made upon quantities. Such transformation is indicated either by rules or by symbols. (See Symbol).

OPPOSITE ANGLES.—Angles lying on opposite sides of two intersecting lines. Thus, the angles ACD and ECB are opposite.



OUNCE.—A unit of weight. In avoirdupois weight, it is the sixteenth part of a pound, and contains 437½ grains; in Troy weight, it is the twelfth part of a pound, and contains 480 grains.

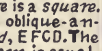
OVAL.—A figure resembling an ellipse, or egg-shaped.

PAR VALUE.—The full value represented on the face of a note, bond, or other certificate of property. (See Par, under Business Terms).

PARALLEL.—Having the same direction, and equidistant in all parts. Two straight lines are parallel to each other, when they lie in the same direction, and are therefore contained in the same plane, and cannot touch or intersect, how far soever they be extended. Three or more straight lines are parallel to each other when they have the same direction. Two or more circles are said to be parallel to each other when they are concentric.

PARALLELOGRAM.—A quadrilateral whose opposite sides are parallel, and also equal. If one angle of a parallelogram is a right angle, all the other angles are also right angles, and the parallelogram is a *rectangle*, as ABCD. If two adjacent sides of a parallelogram are equal, the figure is a *rhombus*; if, in addition, the included angle is a right angle, the figure is a *square*. If a parallelogram is oblique-angled, it is a *rhomboid*, EFGD. The *area* of a parallelogram is equal to the product of its base by its altitude.

PARALLELOPIPEDON.—A polyhedron bounded by six parallelograms. The solid is a *rectangular* parallelopipedon, if the parallelograms are rectangles. If they are squares, it is a *cube*. The area of a parallelopipedon is equal to the product of its length, breadth, and thickness.



PARTIAL PAYMENTS.—Payments made at different times of part of a note, bond, or other obligation. These payments should be indorsed upon the back of the note, bond, etc. The following rule for computing interest when partial payments have been made has been adopted by the Supreme Court of the United States, and by several of the States, and is called

The United States Rule.

I. The rule for casting interest when partial payments have been made, is to apply the payment, in the first place, to the discharge of the interest due. *II.* If the payment exceeds the interest, the surplus goes towards discharging the principal, and the subsequent interest is to be computed on the balance of the principal remaining due. *III.* If the payment be less than the interest, the surplus of interest must not be taken to augment the principal; but interest continues on the former principal until the period when the payments, taken together, exceed the interest due, and then the surplus is to be applied towards discharging the principal, and interest is to be computed on the balance as aforesaid.

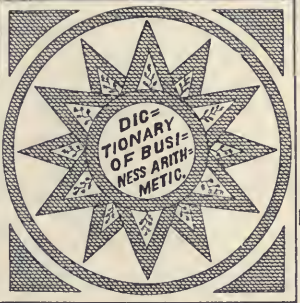
Among merchants where it is customary to make settlements yearly, or oftener, the following rule is much used by them, and is called

The Merchants' Rule.

I. Find the interest on the principal from the time it becomes due to the time of settlement, and add it to the principal. *II.* Find the interest on each payment from the time it was made to the time of settlement, and add the sum of the interest thus found to the sum of the payments. *III.* Deduct the sum of the payments and the interest thereon from the amount of principal and interest, and the difference will be the balance due.

The **Vermont Rule** is the same as the Merchants' Rule, except in the latter, settlement is made not later than a year after the date of the note, while in the former, settlement is not made until the final adjustment of the account, which may be less than a year, or many years. The difference between any two of the three rules may be seen from the following **Example:**—A note of $1000 runs 4 years at 8% interest, on which were made quarterly payments of $50. What was the amount due at settlement?

By the United States Rule,		$440.82
" Merchants'	"	432.23
" Vermont	"	400.00



It will be seen by the above example that, for periods longer than one year, the United States Rule is most favorable to the creditor, then the Merchants' Rule, after which the Vermont Rule; while they favor the debtor in the opposite order.

PARTNERSHIP.—For definitions and forms, see under Business Forms and Terms. To find each partner's share of the gains or losses, when the shares are in proportion to the investments, Place the amount invested by each partner as a numerator, and the whole capital of the firm as a denominator: the several fractions will express each partner's share. Then multiply the gain or loss by the fraction expressing each partner's share, and the product will be his share of the gain or loss. Example.—A, B, and C formed a partnership. A invested $6000, B $5000, and C $3000. Their profits were $5600, to be divided in proportion to their capital. What was each partner's share?

Operation.

$6000+$5000+$3000=$14000, Firm's capital.

$\frac{6000}{14000}=\frac{3}{7}$, A's share. $5600\times\frac{3}{7}=\$2400$, A's gain.

$\frac{5000}{14000}=\frac{5}{14}$, B's " $5600\times\frac{5}{14}=\$2000$, B's "

$\frac{3000}{14000}=\frac{3}{14}$, C's " $5600\times\frac{3}{14}=\$1200$, C's "

Another method is To multiply each partner's capital by the percentage which the gains or losses may be of the capital of the firm. Thus

$5600=40% of $14000.

$6000\times40\%=\$2400$, A's gain.

$5000\times40\%=\$2000$, B's "

$3000\times40\%=\$1200$, C's "

To find each partner's interest at closing: *I.* Find the firm's net capital or net insolvency at commencing and at closing. *II.* Find the firm's net gains or net losses, and each partner's share. Then, *III.* To each partner's original investment add any additional investments or sums to which he may be entitled, and his share of the net gains, if any; also deduct the amounts withdrawn by him, and obligations assumed by the firm for him, and his share of the net losses, if any. If the original agreement entitles him to any other sum, or makes him responsible to the firm for any sum, add or subtract, as the case may be.

PENTAGON.—A polygon of five sides or five angles. A *regular pentagon* is one whose sides and angles are all equal each to each, and may be inscribed in a circle.

PENNY-WEIGHT.—A unit in Troy weight, equivalent to 1/20 of an ounce.

PERCENTAGE.—A general designation for all processes involving the method of reckoning by the hundred. The result obtained by taking a certain per cent. of a number is called *the Percentage*. The number on which the percentage is reckoned is called *the Base*. The sum of the base and the percentage is *the Amount*. The excess of the base over the percentage is *the Difference*. The number used as a multiplier in obtaining any required per cent. of a given number, is *the Rate*. **To find** the percentage, the base and rate being given, Multiply the base by the rate expressed decimally, or remove the decimal point two places to the left, and multiply the result

by the rate. **Example.**—What is 4% of $674.50?

1st Method.	*2d Method.*
$674.50	$6.7450
.04	4
$26.9800	$26.9800

To find the rate, the base and percentage being given, Annex two ciphers to the percentage and divide by the base. **Example.**—What rate per cent. of 400 is 24? *2400÷400=6. Ans. 6%.*

To find the base, the rate and percentage being given, Annex two ciphers to the percentage and divide by the rate. **Example.**—What is the number of which 300 is 60%? *30000÷60=500 Ans.*

To find the base, the rate and the amount, or the rate and difference being given, Divide the amount by 1 increased by the rate per cent. (expressed decimally). Divide the difference by 1 diminished by the rate per cent. (expressed decimally). **Examples.**—600 is 20% more than what number? *600÷1.20=500 Ans.* What number diminished by 20% of itself equals 400? *400÷.80=500 Ans.*

Formulas.

Per cent. = base × rate per cent.
Rate per cent. = per cent. ÷ base.
Base = per cent. ÷ rate per cent.
Base = {Amount ÷ (1 + rate per cent.). / Difference ÷ (1 − rate per cent.).}

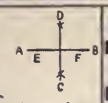
PERCH.—A unit of measure for surfaces. It is a square rod, and is equivalent to 30¼ square yards, or 272¼ square feet. It is used chiefly in land measuring.

PERIMETER.—The line that bounds a plane figure. In a polygon its length is equal to the sum of all the sides of the polygon.

PERIOD.—In Numeration, a group of three orders, as *Period of Units, Period of Thousands*, etc. In Extraction of Roots, a number of figures considered together.

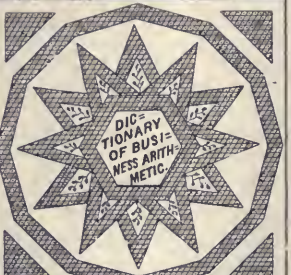
PERMUTATION.—The results obtained by writing any number of factors in every possible order, so that each shall enter every result and enter it but once. Thus, the two letters *a* and *b* can be placed in only two positions, *ab* and *ba*. The three letters *a*, *b*, and *c* can be placed in 6 different positions. The first four letters of the alphabet can be placed in 24 different positions, and the 26 letters of the alphabet admit of 403291461126605635584,000000 different positions. **To find** any result in permutation, Multiply together the numbers, 1, 2, 3, 4, etc., from 1 to the given number; the last product will be the required result.

PERPENDICULAR.—One straight line is perpendicular to another straight line when they meet so as to make the two angles formed equal. Thus AB and DC are perpendicular to each other. Straight lines and curved, straight lines and planes, planes and planes, etc., may be perpendicular to each other.



PERPETUITY.—The sum of money which will buy an annuity to last forever. **To find** any perpetuity, Multiply the annual payment by the *reciprocal* of the rate per cent. at which the perpetuity is computed. **Example.**—What is the value of a perpetuity of $100 per annum at 5%? *Solution.*—5% = 5/100 = 1/20; the reciprocal of 1/20 = 20/1; $100 × 20/1 = $2000 *Ans.*

PERSPECTIVE.—Such a representation of an object upon a surface as shall present to the eye, situated at a particular point, the same appearance that the object itself would present, were



the surface removed.

PILING SHOT.—Shot, shells, etc., are generally piled in regular piles of a pyramidal or wedged-shaped form. The piles are named from the form of their bases, *square, rectangular*, and *triangular*. **To find** the number of balls in any pile, Add to the number of balls in the longest side of the base the number in the parallel side opposite, and also the number in the parallel top row; multiply this sum by one-third of the number of balls in the triangular face of the pile, and the result will be the number of balls in the pile. **Example.**—How many balls in the above pile? *Solution.*—The number in the longest side of the base is 6; in opposite parallel side, 6; in parallel top row, 1; in triangular face of pile, 21, one-third of which is 7; 6+6+1=13; 13×7=91 *Ans.*

PINT.—A unit of measure, equivalent to 1/8 of a gallon, or 28 1/8 cubic inches.

PLANE.—A surface of such nature that, if any two points be taken and joined by a straight line, that line will lie wholly in the surface.

PLUMB-LINE.—A line, or string, having a weight attached, and used for the purpose of ascertaining a vertical direction.

POINT.—Position without extension, it having neither length, breadth, nor thickness.

POLE.—A unit of measure, equivalent to 16½ feet, or 5½ yards.

POLYGON.—A plane figure bounded by straight lines. These lines are called the sides of the polygon, and the points in which they meet are called vertices of the polygon. Polygons are classified according to the number of their sides or angles. The following table exhibits the angles and areas of all the polygons, up to the dodecagon, viz., the angle at the centre, the angle of the polygon, and the area of the polygon when each side is 1:—

No. of Sides.	Name of Polygon.	Angle at centre.	Angle of Polygon.	Area
3	Triangle	120°	60°	0.4330127
4	Square	90	90	1.0000000
5	Pentagon	72	108	1.7204774
6	Hexagon	60	120	2.5980762
7	Heptagon	51 3/7	128 4/7	3.6339124
8	Octagon	45	135	4.8284271
9	Nonagon	40	140	6.1818242
10	Decagon	36	144	7.6942088
11	Undecagon	32 8/11	147 3/11	9.3656399
12	Dodecagon	30	150	11.1961524

To find the area of any regular polygon, Square the side, and multiply that square by the area in that part of the fifth column of preceding table corresponding with the number of sides. **To find** the area of an *irregular polygon* of four or more sides, Divide the figure into triangles by diagonals connecting some one angular point with each of the others; then compute the area of each triangle, and find their sum.

POLYHEDRON.—A solid, whose sides or faces are polygons. The lines in which the faces meet are called *edges*, and the vertices of the polyhedral angles are called *vertices* of the polyhedron. A *regular* polyhedron is one whose faces are regular polygons.

POSITIVE.—A term applied to a quantity affected with the sign +. (See Negative).

POUND.—A unit of weight, as a pound Troy, a pound Avoirdupois, etc. A Troy pound contains 5760 grains, and an Avoirdupois pound, 7000 grains. A cubic inch

TABLE OF PRIME NUMBERS TO 6000.

To use the table, look for the required thousand over one of the subtables, then under it look for the required hundred, following down the column, if the remaining figures of the number occur, it is prime; otherwise, not. Example.—3391 is prime; 3397, not.

0

0	100	200	300	400	500	600	700	800	900
1	1	1	7	1	3	1	1	9	7
2	3	23	1	9	9	7	9	1	1
3	7	27	13	19	21	13	19	21	19
5	9	29	17	21	23	17	27	23	29
7	13	33	31	31	41	19	33	27	37
11	27	29	37	33	47	21	39	29	41
13	31	41	47	39	57	41	43	39	47
17	33	51	49	43	63	43	51	53	53
19	39	57	53	49	69	47	57	57	67
23	49	63	59	57	71	53	61	59	71
29	51	69	67	61	77	59	63	63	77
31	57	71	73	63	81	61	73	77	83
37	63	77	79	67	83	73	87	81	91
41	67	81	83	79	89	77	97	83	97
43	73	83	89	87	..	83	..	87	..
47	79	93	97	91	..	91	..	..	..
53	81	..	..	99	..	..	..	..	..
59	91	..	..	..	..	..	..	..	..
61	93	..	..	..	..	..	..	..	..
67	97	..	..	..	..	..	..	..	..
71	99	..	..	..	..	..	..	..	..
73	..	..	..	..	..	..	..	..	..
79	..	..	..	..	..	..	..	..	..
83	..	..	..	..	..	..	..	..	..
89	..	..	..	..	..	..	..	..	..
97	..	..	..	..	..	..	..	..	..

1000

0	100	200	300	400	500	600	700	800	900
9	3	1	1	9	11	1	9	1	1
13	9	13	3	23	23	7	21	11	7
19	17	17	7	27	31	9	23	22	13
21	23	23	19	29	43	13	33	31	31
31	29	29	21	33	49	19	41	47	33
33	51	31	27	39	53	21	47	61	49
39	53	87	61	47	59	27	53	67	51
49	63	49	67	51	61	31	59	71	73
51	71	59	73	53	71	37	71	73	79
61	81	77	81	59	79	63	83	77	81
63	87	79	99	71	83	67	87	79	93
69	93	83	..	81	97	69	89	89	97
87	..	89	..	83	..	93	..	..	99
91	..	91	..	87	..	97	..	..	..
93	..	97	..	69	..	99	..	..	..
97	..	..	..	93	..	..	..	..	..
..	..	..	..	99	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..

2000

0	100	200	300	400	500	600	700	800	900
3	11	3	9	11	3	9	7	1	3
11	13	7	11	17	21	17	11	3	9
17	29	13	33	23	31	21	13	19	17
27	31	21	39	37	39	23	19	33	27
29	37	37	41	41	43	47	29	37	39
39	49	39	47	47	49	57	31	43	53
53	42	43	51	59	51	59	41	51	57
62	53	51	57	61	51	63	49	51	62
69	61	67	71	73	79	71	53	61	69
81	79	69	77	77	91	77	67	79	71
83	..	73	81	..	93	83	77	87	95
87	..	81	83	..	..	81	89	97	..
89	..	87	89	..	..	89	91	..	..
99	..	93	93	..	..	93	97	..	..
..	..	97	99	..	..	99	..	..	..

3000

0	100	200	300	400	500	600	700	800	900
1	9	3	1	7	11	1	7	1	3
11	19	9	7	13	17	13	9	21	11
19	21	17	13	33	21	17	19	23	17
23	37	21	19	49	29	23	27	33	19
27	63	29	23	51	33	31	33	47	23
41	67	51	29	61	39	37	39	51	29
49	69	53	31	63	41	43	61	53	31
61	81	57	43	67	41	59	67	63	43
67	87	59	47	69	57	71	69	77	47
79	91	71	59	91	59	73	79	81	87
83	..	99	61	99	71	77	93	89	89
89	..	11	..	81	91	91	..	..	..
..	..	73	..	83	97	..	..	..	..
..	..	89	..	93	..	..	..	..	..
..	..	91	..	..	..	..	..	..	..

4000

0	100	200	300	400	500	600	700	800	900
1	11	27	9	7	3	3	1	3	3
3	27	11	37	21	13	21	13	9	9
7	29	17	39	23	17	37	23	17	19
13	33	19	49	41	19	39	29	31	31
19	39	29	51	47	23	43	33	61	33
21	53	31	63	51	47	49	51	71	37
27	51	41	73	57	49	51	59	77	43
49	59	43	91	63	61	57	83	89	51
51	77	53	97	81	67	63	87	..	67
57	..	59	..	83	83	73	89	..	67
73	..	61	..	93	91	79	93	..	69
79	..	71	..	97	81	99	..	..	73
91	..	73	..	..	..	..	..	..	87
93	..	83	..	..	..	..	..	..	93
99	..	89	..	..	..	..	..	..	99
..	..	97	..	..	..	..	..	..	..

5000

0	100	200	300	400	500	600	700	800	900
3	1	9	3	7	1	23	1	1	3
9	7	27	9	13	3	39	11	7	23
11	13	31	23	17	7	41	17	13	27
21	19	33	33	19	19	47	31	21	29
23	47	31	47	31	21	51	41	21	53
39	53	61	51	37	27	53	43	39	81
51	61	73	81	41	31	57	49	43	81
59	71	79	81	43	51	59	79	49	..
77	79	81	93	49	63	69	83	51	..
81	89	97	99	71	69	83	91	59	..
87	97	..	..	77	73	89	..	61	..
99	..	..	..	79	81	93	..	67	..
..	..	..	..	83	91	..	..	69	..
..	..	..	..	..	..	..	..	81	..
..	..	..	..	..	..	..	..	97	..

of distilled water, at 62° Fahr., the barometer being 30 inches, weighs 252.458 Troy grains, which is taken as the unvarying standard of comparison. **A** *Pound* is also a unit of currency in the British, and several other foreign systems; the British pound sterling being equivalent to about $4.86.

POWER.—See Involution.

PRACTICE.—A concise and easy method of applying arithmetical rules to questions which occur in trade and business. It is a particular case in the use of aliquot parts and of the Rule of Three, in which the first term is 1. **To solve** any problem according to this method, Take the sum of such aliquot parts of the given number of things, as the given price is of the unit of currency of the next higher order, and the result will be the price of the thing in terms of that unit. **Example.**—Required the cost

of 24 yards of muslin at 12½ cts. per yard. *Solution.*—At $1 a yard it is worth $24.00. At 12½ cts. a yard it is worth only ⅛ of $24.00, which is $3.00.

PRESENT WORTH.—The *Present Worth* of a debt payable at a future time without interest, is that sum which, at a specified rate per cent. for the same time, would amount to the debt. **To find** the present worth, Divide the given debt by the amount of $1.00 for the given time, at the given rate per cent. **Example.**—What is the Present Worth of $224, due two years hence, without interest, money being worth 6% per annum? *Solution.*—The amount of $1 for 2 years, at 6%, is $1.12; $224 ÷ $1.12 = $200. *Ans.*

PRIME.—A number is prime when it cannot be exactly divided by any other number except 1. See the table at the left for all the prime numbers up to 6000. The *Prime Factors* of a number, are the prime numbers that will exactly divide it. **To resolve** a number into its prime factors, see *Factor.*

PRINCIPAL.—The name given to a sum of money put out at interest. See *Interest.*

PRINCIPLE.—A self-evident truth, or one which has been proved.

PRISM.—A solid whose sides or faces are parallelograms, and whose ends or bases are equal and parallel polygons. A prism is triangular, quadrangular, pentagonal, etc., according as its bases are triangles, squares, pentagons, etc. **To find** the entire surface of any right prism, Multiply the perimeter, or circumference of the base, by the height, and to the product add the area of the two bases. **To find** the solidity of a prism, Multiply the area of the base by the perpendicular height.

PROBABILITY.—In the doctrine of chances, the likelihood of the occurrence of an event. If a small cube be thrown into the air, it will necessarily fall upon one of its six faces, and the probability of its falling upon any one face is said to be ⅙, and the probability that a given face will not turn up is ⅚. The following are different phases of probability: *I.* Probability of the occurrence of *one* event out of any given number. *II.* Probability of the *simultaneous* occurrence of two or more events. *III.* Probability of *successive* events occurring in any given order. *IV.* Probability derived from experience. (See *Expectation*). **To find** the probability, Divide the number of favorable chances by the whole number of chances, both favorable and unfavorable, and the quotient (which is always in the form of a fraction) will be the probability.

PROBLEM.—A question proposed for solution. **To solve** a problem, is to find such a value or values as will satisfy the given conditions of the problem. **To state** a problem, is to translate the conditions of the problem into mathematical language.

PROCESS.—Course of proceedings or operations.

PRODUCT.—The amount or result obtained by taking one number or quantity as many times as there are units in another. The *continued product* of any number of factors is the result obtained by multiplying the first factor by the second, that result by the third, that by the fourth, etc., until all the factors have been used.

PROFIT AND LOSS.—*Profit* is any gain realized from an increase or appreciation of value in commodities, or any other property. *Loss* is the amount which the selling price of any commodity, or other property, is less than its cost; also any depreciation in value. **To find** the gain or loss, when the cost and rate per cent. are given, Multiply the cost by the rate per cent., expressed decimally. **Examples.**—Cloth costing $250, was sold at 15% advance. What was the gain? *Solution.*—$250 X.15=$37.50 *Ans.* A bale of cotton costing $80, was sold at 8% loss. What was the loss? *Solution.*—$80 X.08 = $6.40 *Ans.* **To find** the rate per cent. when the cost and gain or loss are given, Divide the gain or loss by the cost, and the quotient, expressed in hundredths, will be the rate per cent. **Example.**—Cloth costing $4 a yard, was sold for $5 a yard. What was the gain per cent.? *Solution.*—$1 (the gain) ÷ $4 (the cost) = .25 or 25% *Ans.* **To find** the cost when the gain or loss and the rate per cent. are given, Divide the gain or loss by the rate per cent., expressed decimally.—**Example.**—Cloth sold at a gain of $1 per yard, pays a profit of 25%. What was the cost per yard? *Solution.*—$1.00÷.25 = $4.00 *Ans.* **To find** the cost when the selling price and the rate per cent. of gain or loss are given, Divide the selling price by 1 plus or minus the rate per cent. **Example.**—Cloth sold at $5.00 a yard, pays 25% profit: required the cost price per yard. *Solution.*—$5.00÷1.25 = $4.00 *Ans.* **Formulas.**

Gain or loss = cost X rate %.
Rate per cent. = gain or loss ÷ cost.
Cost = gain or loss ÷ rate %.
Cost = selling price ÷ {1 + rate %. / 1 − rate %.

PROGRESSION.—A series in which the terms increase or decrease according to a uniform law. An *Arithmetical Progression* is a series which increase or decrease by a common difference. Thus, 1, 4, 7, 10, 13, etc., is an increasing series, while 20, 17, 14, 11, 8, 5, etc., is a decreasing series. The numbers forming the series are called *terms*; the first and last terms are the *extremes*, and the other terms, the *means*. **To find** the sum of all the terms of a series, when the extremes and number of terms are given, Multiply the sum of the extremes by the number of terms; half the product will be the sum of the series. **Example.**—How many strokes does the hammer of a clock strike in 12 hours? *Solution.*—1 + 12 (the extremes) = 13; 13 X 12 (number of terms) = 156; 156 ÷ 2 = 78 *Ans.* **To find** the common difference, when the extremes and the number of terms are given, Divide the difference of the extremes by the number of terms less one; the quotient will be the common difference. **Example.**—The first term of a series is 3, the last 300, and the number of terms 10; what the com. dif.? *Solution.*—300 − 3 = 297; 297 ÷ 9 = 33 *Ans.* **To find** the last term, when the first term, the common difference, and the number of terms are given, Multiply the common difference by the number of terms less one; if an increasing series, add the product to the first term; if a decreasing series, subtract the product from the first term. **Example.**—The first term of an increasing series is 2, the common difference 3, and the number of terms 50;

what is the last term? *Solution.*—3 X 49 = 147; 147 + 2 = 149 *Ans.* A *Geometrical Progression* is a series increasing by a constant multiplier, or decreasing by a constant divisor. Thus, 2, 4, 8, 16, 32, 64, etc., is an increasing geometric series, while 64, 32, 16, 8, 4, etc., is a decreasing geometric series. The constant multiplier or divisor is called the *ratio*. **To find** the sum of all the terms of a geometric series, Multiply the greatest term by the ratio; from the product subtract the least term, and divide the remainder by the ratio less 1. **Example.**—John Jones gave to his daughter on New Year's day $1; he doubled it on the first day of every month for a year: what sum did she receive? *Solution.*—The ratio is 2; the least term 1; the greatest term 2048 (found by raising the common ratio to a power whose degree is one less than the number of terms, and multiplying the 1st term by it. (2^{11} X 1 = 2048). 2048 X 2 = 4096; 4096 − 1 = 4095; 4095 ÷ 1 = 4095; *Ans.* $4095.

PROOF.—Verification of a rule, or of the accuracy of an operation. In many operations a converse rule will verify the accuracy of the work. For proofs of Addition, Subtraction, Multiplication, and Division, see each of these subjects.

PROPORTION.—The relation which quantities of the same kind bears to another, with respect to magnitude or numerical value. An equality of ratios (see Ratio) is a *Proportion*. Thus, 3 : 6 :: 9 : 18 expresses that the ratio between 3 and 6 is the same as between 9 and 18, and is read, 3 is to 6 as 9 is to 18. The first and fourth terms are called the *extremes*; the second and third, the *means*. The product of the means always equals the product of the extremes. **Simple Proportion** (or Rule of Three) is an equality of two ratios, and consists of four terms. Three of the members of a proportion being given, two of them must be of the same kind, and the other must be of the same kind as the fourth term, or answer. Hence, **To find** any required term of a proportion, Place the number of the same denomination as the answer sought, for the third term. If the answer is to be *greater* than the third term, place the greater of the other two numbers for the second term, and the less for the first. If the answer is to be *less* than the third term, place the less of the other two numbers for the second term, and the greater for the first. Reduce, if necessary, the first and second terms to the same denomination, and if the third term is a compound number, reduce it to the lowest term mentioned in it. Then divide the product of the means by the known extreme, or divide the product of the extremes by the known mean; the quotient will be the term required. **Example.**—If 25 barrels of flour cost $165, what will 35 barrels cost? *Solution.*—

25 : 35 :: $165 : (Answer).
$165 X 35 = $5775; $5775 ÷ 25 = $231 *Ans.* A **Compound Proportion** is one which involves two or more simple ones. All of the terms of a compound proportion appear in couplets, except one, which is always of the same kind as the answer sought. **To find** any required term of a compound proportion, Write the number which is of the same kind as the answer sought, for the third term. Arrange the two terms of each ratio separately, as in simple proportion. Then, if an extreme term be required, it will be equal to the

quotient of the product of the means divided by the product of the known extremes, and if a mean term be required, it will be equal to the product of the extremes divided by the product of the known means. **Example.**–If 12 men in 30 days of 10 hours each earn $270, how many dollars will 18 men earn in 36 days of 12 hours each?

Solution.

12 : 18 :: 270 : (Answer)
30 : 36
10 : 12

18 × 36 × 12 × 270 = 2099520; 12 × 30 × 10 = 3600; 2099520 ÷ 3600 = 583.20; $583.20 *Ans.* **Distributive Proportion** is the method of dividing a number, or quantity, into parts which are proportional to given numbers. **To divide** a number or quantity thus, Multiply the whole quantity to be divided by each proportional number, and divide each product by the sum of the proportional numbers. **Example.**–Divide $1200 proportionally among 4 men whose shares are to each other as 3, 4, 5, 6.

Solution.

3 + 4 + 5 + 6 = 18;

18 : 1200 :: 3 : 200 first man's share.
18 : 1200 :: 4 : 266⅔ second " "
18 : 1200 :: 5 : 333⅓ third " "
18 : 1200 :: 6 : 400 fourth " "

PULLEY.–A small wheel fixed in a block and turning on an axis by means of a cord which runs in a groove formed on the edge of the wheel. A *system of pulleys* is a number of pulleys so arranged that great weight may be raised by a small expenditure of power. **To find** the weight which may be raised by a system of pulleys, Multiply the power by twice the number of movable pulleys, or, when the end of the rope is attached to the movable block, by twice the number of movable blocks, plus one.

PYRAMID.–A solid, or polyhedron, of which the base is a plane rectilinear figure, and the sides are triangles, converging to a point at the top or 'apex.' Pyramids take their names from the nature of their bases, and may be *triangular, quadrangular*, etc., according as their bases are *triangles, quadrilaterals*, etc. A *right pyramid* is one whose base is a regular polygon, and in which a perpendicular let fall from the vertex upon the base, passes through its centre. A *regular pyramid* is one bounded by four equal equilateral triangles. For the rules to find the area of the surface of a pyramid, or its solidity, see *Cone*.

QUADRANGLE.–A figure having four angles and sides.

QUADRATIC.–Denoting a square, or pertaining to it.

QUADRILATERAL.–A polygon of four sides, or four angles. See each of the following: *Trapezium, Trapezoid, Parallelogram, Rectangle, Rhomboid, Square, Rhombus*.

QUADRUPLE.–Four times, as the quadruple of a given area, is an area four times as much.

QUANTITY.–Any thing that can be increased, diminished, or measured; as, number, space, weight, time, etc. A *Unit of Quantity* is a standard of measure, or computation, used for determining or indicating *extent, weight, value, duration*, and *intensity*.

QUART.–A unit of measure equivalent to 2 pints or ¼ gallon; also 57¾ cubic inches.

QUARTER.–In avoirdupois weight,

a quarter is 25 pounds. In England, the quarter is 28 pounds; it is also a measure of capacity, equivalent to 8 bushels.

QUINTAL.–A weight consisting of 100 pounds.

QUOTIENT.–The number resulting from dividing one number by another.

RADICAL.–An indicated root of an imperfect power of the degree indicated. If it be a perfect power, it is not a radical, but a rational quantity under a radical form. The *Radical Sign* is a character $\surd$, placed before a number to show that its root is to be extracted. A small figure placed above the radical sign, is called the *index* of the root. Thus, $\sqrt[2]{25}$ denotes the *second* or *square* root of 25; (The index is usually omitted in square root); $\sqrt[3]{25}$ denotes the *third* or *cube* root of 25; $\sqrt[4]{25}$ denotes the *fourth* root of 25; $\sqrt[6]{25}$ denotes the *sixth* root; etc.

RADIUS.–The distance from the centre of a circle to its circumference, or half the diameter.

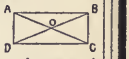
RATE PER CENT.–In computing interest, the part of one dollar which is paid annually for the use of the money. See *Interest*.

RATIO.–The relative magnitude of two numbers of the same kind, or the measure of the relation of one quantity to another, as expressed by their quotient. Thus, the ratio of 3 to 12 is 4, and of 12 to 3 is ¼. The two numbers compared are called the *terms* of the ratio, the first term being the *antecedent*, and the last the *consequent*. A ratio is denoted by two dots similar to a colon; thus, 4 : 12, expresses the ratio of 4 to 12, and is read, As 4 is to 12.

RECIPROCAL.–The reciprocal of a number is the quotient arising from dividing 1 by the number; thus, the reciprocal of 4 is ¼; of 12, 1/12; of 125, 1/125; etc.–The reciprocal of a fraction is expressed by the fraction inverted; thus the reciprocal of ¾ is 4/3; of 1/12, 12/1; etc. The reciprocal of a ratio is expressed by the ratio inverted; thus, the reciprocal of 5 : 15 is 15 : 5. It is called an *inverse ratio*.

RECKON.–To calculate or compute by figures.

RECTANGLE.–A parallelogram whose angles are all right angles. If it is also equilateral, it is a square. Its area is equal to the product of its base and altitude.



RECTANGULAR.–Having right angles, as a square.

RECTILINEAR (AL).–Relating to right lines. A rectilinear polygon is one bounded by straight lines.

REDUCTION.–The process of changing the form of an expression without altering its value, or the operation of finding an equivalent expression in terms of a different unit. *Reduction Ascending* is reducing numbers to units of higher orders, by dividing the number of units of the kind expressed, by the number of them equivalent to a unit of the order required. Thus, 360 inches = 30 feet, or 10 yards. *Reduction Descending* is reducing units to numbers of lower orders, by multiplying the number expressed, by the number of units of the kind required equivalent to one of the kind expressed. Thus, 2 yards = 6 feet, or 72 inches. **To reduce** a number to one of a higher order, as inches to yards, *I.* Divide the given number by the number required to make one of the next higher order. *II.* Divide the quotient

thus obtained as *before*, and so proceed to the denomination required. The last quotient with the several remainders will be the answer. **Example.**—Reduce 4050 gills to gallons.

Solution.

4 gills = 1 pint. 4)4050 gills.
2 pints = 1 quart. 2)1012 pints and 2 gills.
4 quarts = 1 gallon. 4)506 quarts.
126 gallons and 2 quarts.

Ans. 126 gals. 2 qts. and 2 gills.

To reduce a denominate number to one of a lower order, *I.* Multiply the number of the highest denomination by the number which one of this denomination makes of the next lower. *II.* Add to the product the number in the next lower denomination, if any. *III.* Proceed in the same way through the lower denominations to the one required. **Example.**—How many pints in 7 bushels, 3 pecks, 4 quarts, and 1 pint?

Solution.

7 bu., 3 pk., 4 qt., 1 pt.
1 bushel = 4 pecks. 4
31 pecks.
1 peck = 8 quarts. 8
252 quarts.
1 quart = 2 pints. 2
505 pints = *Answer.*

To reduce a fraction of a higher to one of a lower denomination, or to integers, **Multiply** as in whole numbers, described above, according to the rules for the multiplication of fractions. (See *Fraction*). **Example.**—Reduce ⅞ of a gallon to integers of lower denominations.

Solutions.

	(Decimally)
7	⅞ = .875
4 qts. = 1 gallon.	4 qts. = 1 gal.
8)28(3 quarts.	3.500 quarts.
24	2 pts. = 1 qt.
4	1.000 pint.
2 pts. = 1 qt.	
8)8(1 pint.	
8	

Ans. 3 quarts, 1 pint.

To reduce a fraction of a lower, to one of a higher denomination, Divide as in whole numbers, as described above, according to the rules for the division of fractions. **Example.**—Reduce ⅔ of a pint to the fraction of a peck.—*Solution.*—⅔ pt. ÷ 2 = ⅓ qt.; ⅓ qt. ÷ 8 = 1/24 pk. = *Ans.* **To reduce** a quantity composed of one or more denominations, to the fraction of another quantity consisting of one or more denominations, Reduce both quantities to the lowest denomination in either; the less will be the numerator, and the greater the denominator of the required fraction, which reduce to its lowest terms. **Example.**—2 ft. 6 in. is what part of 6 ft. 8 in.?—*Solution.*—2 ft. 6 in. = 30 in.; 6 ft. 8 in. = 80 in.; 30/80 = ¾ *Ans.* **To reduce** foreign money to U.S. money, Multiply the amount expressed in units of the foreign money by the value of one of these units expressed in U.S. money. (See *Coins* under Weights and Measures). **To reduce** U.S. money to foreign money, Divide the amount expressed in U.S. money by the U.S. value of a unit of the kind of money required. See *Sterling Money.*

REGULAR.—Conformed to a rule. A regular polygon is one which is both *equilateral* and *equiangular.*

REMAINDER.—The part of the subtrahend which remains after taking away the minuend.

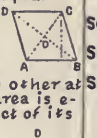
REPETEND.—The part of a decimal which is continually repeated, as 64 in the decimal number 4.646464.

RESOLUTION.—The operation of separating any number or quantity into its factors. See *Factor.*

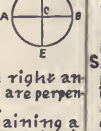
REVERSION.—A payment not due till the occurrence of some contingent event, as the death of a person now living. See *Annuity.*

RHOMBOID.—A parallelogram all of the sides of which are not equal. The rhombus is but a particular form of the rhomboid, in which the sides are all equal.

RHOMBUS.—A parallelogram the sides of which are equal. If its angles become each equal to 90°, it becomes a square. Its diagonals bisect each other at right angles, and its area is equal to half the product of its diagonals.



RIGHT ANGLE.—An angle of 90°. If one straight line, AB, meet another straight line, DE, so as to make the adjacent angles, ACD, and BCD, equal, both angles are right angles, and the two lines are perpendicular to each other.



RIGHT ANGLED.—Containing a right angle. A *right angled triangle* is a triangle containing one right angle.

ROD.—A measure of length equal to 16½ feet, or 5½ yards. It is used chiefly in land surveying.

ROMAN NOTATION.—*See Notation.*

ROOD.—A unit of surface measure used in land surveying. It is equal to 40 perches, or ¼ acre.

ROOT.—The root of any number is a number which, being taken a certain number of times as a factor, will produce the given number. See *Cube Root, Square Root,* and *Radical,* also *Involution.*

ROUND.—A term applied indiscriminately to the shape of conical, cylindrical, spherical, spheroidal, and annular bodies.

RULE.—The prescribed mode or direction given for performing the operations necessary to obtain a certain result.

RULE OF THREE.—A method of solving practical questions by a ratio or proportion. It is so called because the answer is obtained by finding one term of a proportion whose other *three* terms are known. It is also called *Simple Proportion.* **Double Rule of Three** is the same as Compound Proportion. See *Proportion.*

SALIENT.—Projecting outward as an angle. Opposed to *re-entering.*

SCALE.—The various 'radices' which determine the form and digits of the number expressing any numerical quantity. The decimal scale is the only uniform scale that is of importance, all others possessing interest only as matters of curiosity. In varying scales, the base is some unit of measure arbitrarily assumed, as in compound numbers.

SCALES (Balances).—**To find** the true weight with fraudulent balances, when the weights are accurate, **Find** what weights will balance the substance to be weighed; then transpose them, and find the weight that will produce an equilibrium; then multiply together the two weights thus found, and extract the square root of the product.

SCALENE TRIANGLE.—A triangle whose sides are all unequal.

SECANT.—A straight line cutting a curve in two or more points.

SCREW.—A cylinder worked by a lever, and having upon it a thread, which is a winding inclined plane. **To estimate** the advantage of a screw, Multiply the power by the circumference of the circle which it describes, and divide the product by the distance the weight is raised by one revolution.

SECOND.—A unit of measure employed in estimating time, and is equivalent to the 60th part of a minute. It is also a unit in circular measure, equivalent to the 3600 part of a degree.

SECTION.—A tract of land one mile square, containing 640 acres. See *Land Measure* under Weights and Measures.

SECTOR.—The part of a circle included between two radii and an arc. **To find** the area of a sector,

Multiply the arc of the sector by half of the radius.

SEGMENT.—The part of a circle included between a chord and the arc which it subtends. (See *Circle*). **To find** the area of a segment, From the area of a corresponding sector, subtract the area of the triangle formed by the chord and radii, for a segment less than a semicircle, but add these areas for a segment greater than a semicircle.

SERIES.—An infinite number of terms which follow one another, each term being derived from one or more of the preceding ones, by a fixed law, called the *law of the series*. (See *Progression*).

SEXTANT.—The sixth part of the circumference of a circle.

SEXTUPLE.—Six times as much, or six fold.

SHILLING.—An English coin equivalent to about 24⅓ cents.

SHINGLES.—When exposed four inches, 9 are required for each square foot of surface; if exposed four and a half inches, 8; if exposed five inches, 7⅕.

SIGN.—A symbol employed to indicate the relation between quantities, the operation to be performed upon them, to show the result or nature of some previous operation, or to indicate the sense in which an indicated quantity is to be considered. (See *Symbol*).

SIGNIFICANT.—A term applied to figures standing for numbers, as opposed to 0.

SIMILAR.—A term applied to figures composed of the same number of parts, which are arranged in the same manner, being of the same form, but differing in magnitude.

SIMPLE.—Not combined, complicated, or compounded. A *Simple Number* is a number expressed in a uniform scale. A *Simple Quantity* is one containing only a single term. A *Simple Equation* is one of the first degree. For Simple Proportion, see *Proportion*.

SOLID.—A magnitude having the attributes of *length, breadth* and *thickness*. Same as *volume*.

SOLIDITY.—The number of times that a solid or volume contains another solid or volume, taken as a unit of measure.

SOLUTION.—The operation of finding such value or values for the unknown parts of a problem, as will satisfy its conditions.

SOUND, VELOCITY OF.—The velocity of sound in still air at 32° Fahr., is 1090 feet per second. As the temperature rises, the velocity increases at the rate of 1.12 feet for every degree Fahrenheit. The following table gives the velocity in feet per second in some other substances:

Oxygen	1040	Silver	5717
Hydrogen	4164	Steel and Glass	16600
Fresh Water	4700	Pine	10900
Lead	4030	Ash	15314

SOUNDING.—A measured depth of water, ascertained by means of a line and lead.

SPACE.—Extension to an indefinite distance in all directions. It is co-extensive with, and inseparable from, the sensible, external, or Object World.

SPHERE.—A solid bounded by a curved surface, every point of which is equally distant from a point within called the *centre*. A line passing through the centre, and terminated each way by the surface, is called the *diameter or axis*. The *radius* is a line extending from the centre to the surface. **To find** the surface of a sphere, Multiply the diameter by the circumference. *Or* Multiply the square of the diameter by 3.1416. **To find** the solidity of a sphere, Multiply the cube of the diameter by 3.1416, and take one-sixth of the product. *Or* Multiply the area of the surface by one-sixth of the diameter.

SPHERICAL.—Relating to a sphere, as a spherical angle, etc.

SPHEROID.—A solid resembling a sphere in form, having a major and a minor axis, and which may be generated by revolving an ellipse about one of its axes. An *oblate spheroid* is one generated by revolving an ellipse about its conjugate axis. A *prolate spheroid* is one generated by revolving an ellipse about its transverse axis. **To find** the solidity of an oblate spheroid, Multiply the square of the greater diameter, by the less, and this product by .5236. **To find** the solidity of a prolate spheroid, Multiply the square of the less diameter, by the greater, and this product by .5236.

SPHEROIDAL.—Relating to a spheroid, as a spheroidal triangle.

SPIRAL.—A curve generated by moving a point along a straight line, in the same direction, according to any law, while the straight line revolves uniformly about a fixed point, always continuing in the same plane.

SQUARE.—A quadrilateral whose sides are equal, and its angles right angles. The *area* of a square is equal to the product of two adjacent sides.

SQUARE ROOT.—The square root of a quantity, is a quantity which, being taken twice as a factor, will produce the given quantity. Thus, the square root of 49 is 7. The following table contains the square roots of numbers from 1 to 232:

No.	Square Root.	No.	Square Root.	No.	Square Root.	No.	Square Root.
1	1	59	7.681	117	10.816	175	13.228
2	1.414	60	7.745	118	10.862	176	13.266
3	1.732	61	7.810	119	10.908	177	13.304
4	2	62	7.874	120	10.954	178	13.341
5	2.236	63	7.937	121	11	179	13.379
6	2.449	64	8	122	11.045	180	13.416
7	2.645	65	8.062	123	11.090	181	13.453
8	2.828	66	8.124	122	11.135	182	13.490
9	3	67	8.185	125	11.180	183	13.527
10	3.162	68	8.246	126	11.224	184	13.564
11	3.316	69	8.306	127	11.269	185	13.601
12	3.464	70	8.366	128	11.313	186	13.638
13	3.605	71	8.426	129	11.357	187	13.674
14	3.741	72	8.485	130	11.401	188	13.711
15	3.872	73	8.544	131	11.445	189	13.747
16	4	74	8.602	132	11.489	190	13.784
17	4.123	75	8.660	133	11.532	191	13.820
18	4.242	76	8.717	134	11.575	192	13.856
19	4.358	77	8.775	135	11.618	193	13.892
20	4.472	78	8.831	136	11.661	194	13.928
21	4.582	79	8.888	137	11.704	195	13.964
22	4.690	80	8.944	138	11.747	196	14
23	4.795	81	9	139	11.789	197	14.035
24	4.898	82	9.055	140	11.832	198	14.071
25	5	83	9.110	141	11.874	199	14.106
26	5.099	84	9.165	142	11.916	200	14.142
27	5.196	85	9.219	143	11.958	201	14.177
28	5.231	86	9.273	144	12	202	14.212
29	5.385	87	9.327	145	12.041	203	14.247
30	5.472	88	9.380	146	12.083	204	14.282
31	5.567	89	9.434	147	12.124	205	14.317
32	5.656	90	9.486	148	12.165	206	14.352
33	5.744	91	9.539	149	12.206	207	14.387
34	5.830	92	9.591	150	12.247	208	14.422
35	5.916	93	9.643	151	12.288	209	14.456
36	6	94	9.695	152	12.328	210	14.491
37	6.082	95	9.746	153	12.369	211	14.525
38	6.164	96	9.798	154	12.409	212	14.560
39	6.244	97	9.848	155	12.449	213	14.594
40	6.324	98	9.899	156	12.489	214	14.628
41	6.403	99	9.949	157	12.529	215	14.662
42	6.480	100	10	158	12.569	216	14.696
43	6.557	101	10.049	159	12.609	217	14.731
44	6.633	102	10.099	160	12.649	218	14.764
45	6.708	103	10.148	161	12.688	219	14.798
46	6.782	104	10.198	162	12.728	220	14.832
47	6.855	105	10.246	163	12.767	221	14.866
48	6.928	106	10.295	164	12.806	222	14.899
49	7	107	10.344	165	12.845	223	14.933
50	7.071	108	10.392	166	12.884	224	14.966
51	7.141	109	10.440	167	12.922	225	15
52	7.211	110	10.488	168	12.961	226	15.033
53	7.280	111	10.535	169	13	227	15.066
54	7.348	112	10.583	170	13.038	228	15.099
55	7.416	113	10.630	171	13.076	229	15.132
56	7.483	114	10.677	172	13.114	230	15.165
57	7.549	115	10.723	173	13.152	231	15.198
58	7.615	116	10.770	174	13.190	232	15.232

To find the square root of a number, *I.* Separate the given number into periods of two figures each, beginning at the place of units. *II.* Find the greatest square in the left-hand period, and place

its root for the first figure of the required root.

Operation.

Subtract the square of this figure from the left-hand period, and to the remainder annex the next period for a dividend.

50964(225.75+
4
42)109
84
445)2564
2225
4507)33900
31549
45145)235100
225725

III. Double the root already found, for a trial divisor; find how often it is contained in the dividend, exclusive of the right-hand figure, and place the result in the root, and also at the right of the trial divisor. *IV.* Multiply the complete divisor by the last figure of the root; subtract the product from the dividend, and to the remainder annex the next period for a new dividend. *V.* Proceed in the same manner with all the periods to the last. The result will be the square root required.

STERLING MONEY.—The currency of Great Britain. For rule to reduce to U.S. money, see *Foreign Exchange*. For table, see *English Money*, under Weights and Measures.

STRAIGHT LINE.—A line which does not change its direction between any two of its points.

SUBTRACTION.—The operation of finding the difference between two numbers. The *Minuend* is the greater number; the *Subtrahend*, the less; and the *Remainder*, the difference. **To prove** the accuracy of the operation, *I.* Add the true remainder to the subtrahend, and the sum will equal the minuend. *II.* Find the excess of 9's in the subtrahend and in the remainder, and take their sum, from which cast out the 9's, and find the excess. Find the excess of 9's in the minuend, and if these results are equal, the work is probably correct.

	By excess of 9's.
Minuend	87138641
Subtrahend	2235688
Remainder	8490236 2

SUBTRAHEND.—See above.

SUM.—The aggregate of two or more quantities. The sum is greater than any of its parts.

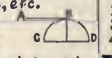
SUPERFICIAL.—Relating to a surface, as superficial contents, etc.

SURFACE.—Extension in *area* only. A *plane* surface extends in the same direction throughout, but a *curved* surface changes its direction.

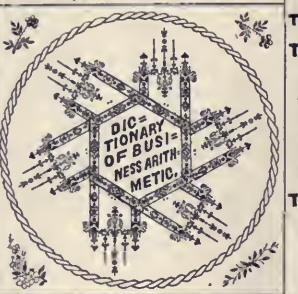
SYMBOL.—Any character used to represent a quantity, an operation, a relation, or an abbreviation. The sign +, called *plus*, indicates addition. The sign —, called *minus*, indicates subtraction. The sign × indicates multiplication. The sign ÷, or :, indicates division. The sign =, called *sign of equality*, denotes that the expressions between which it is placed are equal. The signs ( ), [ ], { }, and a horizontal line over a number are *symbols of aggregation*, and signify that the expressions enclosed are to be taken as a whole. The colon, :, written between numbers indicates the ratio of the former to the latter. (See *Ratio*). The double colon, ::, indicates the equality of two ratios. (See *Proportion*). For the sign $\sqrt{\ }$, see *Radical*. The period, ·, placed between two numbers, thus, 4·5, denotes that they are to be multiplied together. The dividend written over the divisor, thus, $\frac{4}{2}$, or between two curved lines, with the divisor at the left, thus, 4)16(, indicates division.

TABLE.—A collection of particulars, in a small space, for reference and ready application, such as weights, measures, etc.

TANGENT.—A right line which touches a curve but does not cut it, as AB is tangent to the curve CBD.



TETRAGON.—A polygon having four angles and four sides.



TAXES.—Sums of money assessed on persons, property, incomes, or products, usually for some public purpose. A *Capitation* or *Poll Tax*, is a tax assessed on persons. *Property Tax* is a tax assessed on real or personal property. **To find** what sum must be assessed to raise a given net amount, Subtract the rate allowed for collection from $1, and divide the net amount to be raised, by the remainder; the quotient will be the entire sum to be assessed. **Example.**—Allowing 5% for collection, what sum must be assessed to raise $950,000, net?—*Solution.*—$1.00 — .05 = .95; $950000 ÷ .95 = $1000000 *Ans.* If there be a *specific* tax for any purpose, it must be deducted from the total amount to be raised. Then, **To find** how much must be paid on each dollar of taxable property to raise the remainder of the tax, Divide the amount to be raised by the amount of taxable property, less that part on which nothing can be collected. **Example.**—The property of a certain town is valued at $2500000; its tax assessment is $37500. What rate per cent. is the tax? How much will be paid by a man whose property is valued at $12000?—*Solution.*—37500 ÷ 2500000 = .015, or, 1½ cts. tax per dollar = *Ans.* to first. 12000 × 1½% = $180 = *Ans.* to second.

Tax Table.—Rate, 14 Mills on $1.

$1 pays	$.014	$50 pay	$.700	$800 pay	$12.600
2 pay	.028	60 ,,	.840	1000 ,,	14.000
3 ,,	.042	70 ,,	.980	2000 ,,	28.000
4 ,,	.056	80 ,,	1.120	3000 ,,	42.000
5 ,,	.070	90 ,,	1.260	4000 ,,	56.000
6 ,,	.084	100 ,,	1.400	5000 ,,	70.000
7 ,,	.098	200 ,,	2.800	6000 ,,	84.000
8 ,,	.112	300 ,,	4.200	7000 ,,	98.000
9 ,,	.126	400 ,,	5.600	8000 ,,	112.000
10 ,,	.140	500 ,,	7.000	9000 ,,	126.000
20 ,,	.280	600 ,,	8.400	10000 ,,	140.000
30 ,,	.420	700 ,,	9.800	20000 ,,	280.000
40 ,,	.560	800 ,,	11.250	30000 ,,	420.000

THICKNESS.—One of the dimensions of a solid, usually the lesser one.

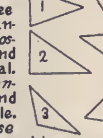
TIME MEASURE.—Used to compute the passage of time. For table, see under Weights and Measures.

TOTAL.—The whole sum, amount, or aggregate of several particulars.

TRAPEZIUM.—A quadrilateral having no two sides parallel. **To find** the area of a trapezium, or other irregular polygon, Divide the figure into triangles by diagonals connecting some one angular point with each of the others; then compute the area of each triangle, and find their sum.

TRAPEZOID.—A quadrilateral having only two of its sides parallel. **To find** the area of a trapezoid, or any other quadrilateral having two sides parallel, Multiply half the sum of the two parallel sides by the altitude, or perpendicular distance between the two parallel sides.

TRIANGLE.—A polygon having three sides and three angles. No. 1 is an *isosceles* triangle, and has two sides equal. No. 2 is a *right angled* triangle, and has one right angle. No. 3 is an *obtuse angled* triangle, and has one obtuse angle. No. 4 is an *equilateral* triangle, and has all its sides equal. No. 5 is a *scalene* triangle, and has no two sides equal. No. 6 is an *acute angled* triangle, and has all its angles acute. **To find** the area of a triangle, *I.* Multiply the base by half the altitude; or, *II.* From half the sum of the three sides subtract each side separately; then multiply together the half sum and the three remainders, and extract the square root of the product; the square root will be the required area.



TRIANGLED, or Triangular.—Having three angles.

TRIGON.—A polygon having three sides. Same as triangle.

TROY WEIGHT.—Used for weighing precious metals, gems, etc. For table, see under Weights and Measures. The Troy pound is the standard of all other weights; it is the weight of 22.7944 cu. in. of pure water at its greatest density (39.2° Fahr.). The grains mentioned in Avoirdupois Weight are Troy grains.

TRUE DISCOUNT.—See *Discount*.

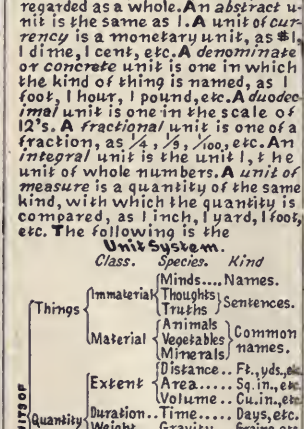
TRUNCATED CONE, or, Pyramid.—That portion of a cone or pyramid included between the base and a plane oblique to the base passed between it and the vertex. See *Cone*.

UNDECAGON.—A polygon having eleven sides or angles.

UNEVEN NUMBER.—A number not exactly divisible by 2, as 1, 3, 5, 7, etc. Same as odd number. An *unevenly uneven* number is one which, being divided by 4, leaves a remainder of 1, as 1, 5, 9, 13, etc.

UNIT.—A single thing of any kind regarded as a whole. An *abstract* unit is the same as 1. A unit of *currency* is a monetary unit, as $1, 1 dime, 1 cent, etc. A *denominate* or *concrete* unit is one in which the kind of thing is named, as 1 foot, 1 hour, 1 pound, etc. A *duodecimal* unit is one in the scale of 12's. A *fractional* unit is one of a fraction, as 1/4, 1/3, 1/100, etc. An *integral* unit is the unit 1, the unit of whole numbers. A *unit of measure* is a quantity of the same kind, with which the quantity is compared, as 1 inch, 1 yard, 1 foot, etc. The following is the

Unit System.



UNITY.—An entire collection regarded as a single thing. Thus, 100 yards, considered as a single distance, is unity.

VALUE.—That which has procuring, or purchasing power, or possesses exchangeability. The numerical value of an expression is the result obtained by making each quantity entering the expression equal to some number, and then performing the operations indicated.

VELOCITY.—See *Falling Bodies*, also *Table of Velocities* elsewhere in this book.

VERIFICATION.—The act of testing or proving computations, operations, etc., to be correct. See the tests given in connection with the different operations, as *Addition*, *Subtraction*, etc.

VERTEX.—A point at which the sides of an angle meet.

Thus A is the vertex of the angle CAB.

VERTICAL.—Perpendicular to the plane of the horizon. A *vertical angle* is an angle, the plane of whose sides is vertical. A *vertical line* is the direction assumed by a plumb-line, with a weight attached to one extremity, when it is freely suspended from the other extremity.

VOLUME.—Dimensions; space occupied; the number of cubic

units contained in a body. See *Solidity*.

VULGAR.—Common. A *vulgar fraction* is one whose denominator does not conform to the scale of tens, in contradistinction to *decimal fraction*.

WARPED SURFACE.—A surface conforming to that generated by a straight line moving so that no two of its consecutive positions shall be in the same plane.

WEDGE.—A solid bounded by five plane figures, and represents two inclined planes. The advantage gained by its use may be approximately reached by the rule given for the Inclined Plane. The parallelogram, ABGH, is called the *back*. The two trapezoids, DCGH and ABCD, are called *faces*. The two triangles ADG and BCH, are called *ends* of the wedge, and CD is the *edge*.

WEIGHT.—The resultant of the forces exerted by gravity upon all the different particles of a body. The standard unit of weight is the *pound*. (See *Troy Weight*). The standard avoirdupois pound of the United States, as determined by Mr. Hassler, is the weight of 27.7015 cubic inches of distilled water, weighed in air, at the temperature of maximum density (39.2° Fahr.), the barometer being 30 inches. For *net* and *gross* weight, see under *Business Terms and Forms*. For the various tables relating to weights and measures, see *Weights and Measures* elsewhere in this book. The French system of weights is one of the most perfect, as well as the most simple, of all systems that have ever been adopted. See *Metric System* under *Weights and Measures*.

WELL or Cistern.—To ascertain the capacity of a well or cistern, Multiply the square of the diameter in inches by .7854, and this product by the depth in inches; divide this product by 231, and the quotient will be the contents in gallons. If the actual quantity of water be required, multiply by the depth of the water, and not by that of the well or cistern. See *Cistern*.

WHEEL AND AXLE.—A kind of lever, in which the radius of the wheel and the radius of the axle are parts of the lever, and the center of the axle is the fulcrum. To find the weight which can be raised by the wheel and axle, Multiply the power by the radius of the wheel, and divide the product by the radius of the cylinder or axle.

WIDTH, or Breadth.—One of the three attributes of extension, the other two being *length* and *height* or *thickness*. Width is usually applied to the intermediate dimension of a body, length to the greatest, and thickness to the least.

WINE MEASURE.—Used in measuring nearly all liquids, such as liquors, molasses, water, etc. For table, see under *Weights and Measures*.

YARD.—A measure of length equal to 3 feet, or 36 inches. In *Cloth Measure*, the yard is now divided into binary parts, the old division into quaternary parts of quarters and nails (na. = 2¼ in.) being now seldom used.

YEAR.—A unit of time, determined by the revolution of the earth in its orbit. The year is either *astronomical* or *civil*. The length of the solar year is 365 days, 5 hours, 48 minutes, and 49.7 seconds. The civil year is the year of the calendar.

ZENITH.—The point in the heavens in a line with the spectator's position and the center of the earth. The *nadir* is the point directly under the spectator's feet.

ZERO.—The character 0, which signifies *no number*. See *Cipher*.

ZONE.—The area of a zone is equal to the circumference of the circle of the sphere, multiplied by the zone's altitude.

ACRE, Dimensions of.—See Land Measure.

ALCOHOL, Percentage in wine and liquors.—Ale, 7.4; Aniseed, 33.0; Beer, 4.0; Bordeaux, 11.5; Brandy, 53.4; Burgundy, 13.6; Canary, 18.8; Cape, 19.2; Chartreuse, 43.0; Cider, 8.6; Champagne, 12.2; Claret, 13.3; Curacoa, 27.0; Elder, 9.3; Gooseberry, 11.8; Hock, 11.6; Lisbon, 19.5; Moselle, 9.6; Malaga, 17.3; Maimsey, 19.7; Marsala, 20.2; Madeira, 21.0; Maraschino, 34.0; Orange, 11.2; Porter, 4.5; Port, 23.2; Perry, 8.8; Rhine, 11.0; Sherry, 19.0; Scotch, 54.3; Tokay, 11.2; Vermont, 19.0; Whiskey (ordinary), 53.9; Whiskey (Irish), 53.9; Whiskey (Scotch), 54.3. (Spirits are said to be "proof" when they contain 51 per cent.)

APOTHECARIES' WEIGHT.—20 Grains (gr.) = 1 Scruple; 3 Scruples (ʒ) = 1 Dram; 8 Drams (ʒ) = 1 Ounce; 12 Ounces (℥) = 1 Pound (lb.).

Also, 60 Minims (M) = 1 Fluidram; 8 Fluidrams (fʒ) = 1 Fluidounce; 16 Fluidounces (fʒ) = 1 Pint; 8 Pints (O) = 1 Gallon (Cong.)

Also, 1 Common teaspoonful = 45 drops; 1 com. teaspoonful = ¼ com. tablespoonful = 1 fluidram; 1 com. tablespoonful = ½ com. teacup = about ½ fluidounce; 1 com. teacup = about 4 fluidounces; 1 Pint of water = about 1 pound.

ASSAYERS' WEIGHT.—1 Carat = 10 Pwt. Troy; 1 Carat grain = 2 pwt. 12 gr. or 60 gr. Troy; 24 Carats = 1 Pound Troy. (<See Volume of Air.

ATMOSPHERIC WEIGHT.—In whole numbers the atmospheric presure per square inch is 15 pounds. Atmospheric Air.—A column, 1 inch square, full height = 14.73 pounds. Mercury.—A column, 1 inch square, and 30 inches high = 14.73 pounds. Water.—A column, 1 inch square, and 33.95 feet high = 14.73 pounds.

AVOIRDUPOIS WEIGHT.—16 Drams = 1 Ounce; 16 Ounces = 1 Pound; 25 Pounds = 1 Quarter; 4 Quarters = 1 Cwt.; 20 Cwt. = 1 Ton.

In the English, or Long Ton, 112 pounds = 1 Cwt.

BAROMETER, Height at different elevations above the sea-level.—1000 ft., 29.91 inches; 2000 ft., 27.86 in.; 3000 ft., 26.85 in.; 4000 ft., 25.87 in.; 5000 ft., 24.93 in.; 1 mile, 24.67 in.; 2 miles, 20.29 in.; 3 miles, 16.68 in.; 4 miles, 13.72 in.; 5 miles, 11.28 in.; 10 miles, 4.24 in.; 15 miles, 1.60 inches.

BARRELS, CASKS, ETC.—25 Pounds = 1 Keg of powder; 56 lbs. = 1 Firkin of butter; 100 lbs. = 1 Cental of grain; 100 lbs. = 1 Cask of talsins; 100 lbs. = 1 Quintal of dried fish; 196 lbs. = 1 bbl. of flour; 200 lbs. = 1 bbl. of beef, pork, or fish; 256 lbs. = 1 bbl. of soap; 280 lbs. = 1 bbl. of salt.

BOARD MEASURE.—See Lumber Measure on another page.

BOOKS, Measurements or Sizes of.—The principal sizes of books are four, namely: Folio, a long book; Quarto (4to), nearly square (is similar to this Manual); Octavo (8vo), the general size; and Duodecimo (12mo), a small book. Other smaller forms are, Sixteen mo (16 mo), Twenty-four mo (24 mo), Thirty-two mo (32 mo), and Forty-eight mo (48 mo).

FOLIO.—The standard size of book paper is 25 x 38 inches; one half of the sheet being 19 x 25 inches, which folded in two leaves, with four pages, makes a book of the size called a folio. QUARTO.—When the half sheet is folded in four leaves, with eight pages, it forms a quarto size. OCTAVO.—When the half sheet is folded in eight leaves, with sixteen pages, it forms an octavo; and so on for duodecimo, 16 mo, 18 mo, 24 mo, etc.

SIGNATURE.—The marks a, b, c; 1, 2, 3, etc., occasionally found at the bottom of the page, are for the direction of the binders in folding the sheets.

NAMES OF PAPER AND ITS DIVISION FOR BOOK PRINTING.	SIZE OF PAGE OF PAPER IN INCHES.	SIZE OF PAGE.	SIZE OF TYPE MOST SUITABLE, AND THE NUMBER OF WORDS AVERAGING 5 LETTERS EACH, TO THE PAGE, IN EACH STYLE OF TYPE.
FOOLSCAP[1]—		SQUARE INCHES.	
Quarto (4to)	6½ x 8½	34	Pi. 414; S.Pi. 587; LPr. 667.
Octavo (8vo)	4½ x 6½	16	LPr. 306; Bour. 399; Brev. 450.
Duodecimo	3½ x 5½	11	LPr. 214; Bour. 280; Brev. 315.
Sixteen mo	3½ x 4½	8	Brev. 225; Min. 270; Non. 362.
CROWN—			
Quarto (4to)	7½ x 10	41	Pi. 492; S.Pi. 696; LPr. 782.
Octavo (8vo)	5 x 7½	21	S.Pi. 377; LPr. 421; Bour. 544.
Duodecimo	3½ x 6½	14	LPr. 276; Bour. 357; Brev. 405.
Sixteen mo	3½ x 5	10	Bour. 255; Brev. 288; Min. 388.
DEMY—			
Quarto (4to)	8½ x 11½	54	Eng. 520; Pi. 666; S.Pi. 944.
Octavo (8vo)	5½ x 8½	27	Pi. 330; S.Pi. 457; LPr. 520.
Duodecimo	4½ x 7½	19	S.Pi. 326; LPr. 398; Bour. 476.
Sixteen mo	4½ x 4½	14	Bour. 357; Brev. 405; Min. 484.
Thirty-two mo	2½ x 4½	6½	Brev. 189; Min. 222; Non. 297.
ROYAL—			
Quarto	10 x 12½	67	Eng. 640; Pi. 822; S.Pi. 1152.
Octavo	6½ x 10	35	Pi. 426; S.Pi. 602; LPr. 681.
Duodecimo	5 x 8½	24	S.Pi. 414; LPr. 467; Bour. 604.
Sixteen mo	5 x 6½	16	LPr. 314; Bour. 399; Brev. 459.
Thirty-two mo	3½ x 5	9	Bour. 221; Brev. 261; Min. 309.

[1] EXCLUSIVE OF HEADLINE. [2] SIZES OF PAPER UNDER PAPER MEASURE. [3] Pi. = Pica; S. Pi. = Small Pica; LPr. = Long Primer; Bour. = Bourgeois; Brev. = Brevier; Min. = Minion; Non. = Nonpareil. For size of type, see under Type.

The following measurements may be useful as giving an idea of the sizes of books as fixed by the librarians who have abolished the time-honored expressions, "imperial," "crown," "foolscap," "demy," etc., and adopted the almost equally vague terms "large" and "small" instead: LARGE folio (la. fol.), over 18 inches; FOLIO (fol.), below 18 inches; SMALL folio (sm. fol.), below 15 inches; LARGE octavo (la. 8vo), below 11 inches; OCTAVO (8vo), below 9 inches; SMALL octavo (sm. 8vo), below 8 inches; DUODECIMO (12 mo), below 8 inches; DECIMO OCTAVO (18 mo) is 6 inches; MINIMO (7 mo), below 6 inches; LARGE quarto (la. 4 to), below 15 inches; QUARTO (4 to), below 11 inches; SMALL quarto (sm. 4to), below 8 inches.

Modern manufacturers are prepared to fill orders for paper of any size whatever. This Manual is printed on an odd size.

BOX MEASURES.—A box 16 by 16 inches square, and 8 inches deep, will contain a bushel, or 2150.4 cubic inches, and each inch in depth, containing one gallon.

A box 24 by 11.2 inches square, and 8 inches deep, will also contain a bushel. If 12 by 11.2 inches square, and 8 inches deep, it will contain half a bushel. If 8 by 8.4 square an 8 deep, it contains half a peck. If 4 by 4 sq'e, and 4.2 deep, it contains one quart.

BRAIN, Size and Weight of.—See Man and Woman (General Index).

BRICK MEASUREMENT.—To find the number of bricks required for any building, multiply the dimensions, length, height, and thickness, in feet and fractions of a foot, of the several brick walls, and the product by 22½, and the result will be the number of bricks required. Allowance must be made for doors, windows, chimneys, etc.

The subjoined table is reckoned on a basis of 7 bricks to the superficial square foot. For 17 superficial feet, add the numbers for 10 and 7; for 75, add 70 and 5; for 500 superficial feet, take 5 times 100; etc.

SUPERFICIAL FEET OF WALL.	NUMBER OF BRICKS TO THICKNESS OF					
	4 IN.	8 IN.	12 IN.	16 IN.	20 IN.	24 IN.
1	7	15	23	30	38	45
2	15	30	45	60	75	90
3	23	45	68	90	113	135
4	30	60	90	120	150	180
5	38	75	113	150	188	225
6	45	90	135	180	225	270
7	53	105	158	210	263	315
8	60	120	180	240	300	360
9	68	135	203	270	338	405
10	75	150	225	300	375	450
20	150	300	450	600	750	900
30	225	450	675	900	1125	1350
40	300	600	900	1200	1500	1800
50	375	750	1125	1500	1875	2250
60	450	900	1350	1800	2250	2700
70	525	1050	1575	2100	2625	3150
80	600	1200	1800	2400	3000	3600
90	675	1350	2025	2700	3375	4050
100	750	1500	2250	3000	3750	4500

BUILDINGS, Seating Capacity of.—Coliseum at Rome, 87,000; Cathedral at Milan, 37,000; St. Paul's, Rome, 32,000; St. Paul's, London, 31,000; St. Peter's, Rome, 54,000; St. Petronia, Bologna, 24,400; Cathedral, Florence, 24,300; Cathedral, Antwerp, 24,000; St. John Lateran, Rome, 23,000; St. Sophia, Constantinople, 23,000; Notre Dame, Paris, 21,000; Theater of Marcellus, Rome, 20,000; Cathedral, Pisa, 13,000; St. Stephen's, Vienna, 12,400; St. Dominic's, Bologna, 12,000; St. Peter's, Bologna, 11,400; Cathedral, Vienna, 11,000; Gilmore's Garden, New York, 8,443; Mormon Temple, Salt Lake, 8,000; St. Mark's, Venice, 7,500; Spurgeon's Tabernacle, London, 6,000; Bolshoi Theater, St. Petersburg, 5,000; Music Hall, Cincinnati, 4,824; Chicago Auditorium, 8,000; Academy of Music, Philadelphia, 2,865.

BUILDINGS, Weight of.—See Monuments and Towers.

BUSHEL, Number pounds in.—Barley, 48 (50, Cal., 47, Ga., Ky., Pa.); Beans, 60 (64, Me.); Bran, 20; Buckwheat, 32 (40, Cal., 48, Conn., Me., Mass., Mich., N.Y., 50, Wis., Tenn., O., N.C., N.J., Kan., Ind., 55, Ku., 56, S.C.); CASTOR BEANS, 46; CLOVER SEED, 60 (64, N.H., N.Y., 62, Pa.); COAL—Anthracite, 80, (76, Ky.); CORN—Cob, 70 (68 Ind.); CORN—Shelled, 56 (32, Cal., Va., 53, Ku.); CORN-MEAL, 50 (48, Ga., Ill., 48, N.C.); DRIED APPLES, 24 (25 Ind., 26, S.C., Tenn., 22, Mich., O., 28, Va., Wis., Minn., 25, N.J.); DRIED PEACHES, 33; FLAX SEED, 56 (54, Kan., 55, N.J., N.Y., 44, R.I.); GRASS—Blue, 14; GRASS—Red Top, 14; HAIR—Plastering, 8; HEMP SEED, 44; HUNGARIAN GRASS, 50; LIME—Unslaked, 30; MILLET SEED, 50;

FROM FAC-SIMILE MADE BY THE AUTHOR

WEIGHTS & CONTIN. MEASURES USED.

MALT, 38; OATS, 32 (30, Me., Mass., N.J.); Onions, 57 (48, Ind., 52, Mass., 50, R.I.); PEAS, 60 (66, Ark.); POTATOES, 60 (56, Pa.); POTATOES Sweet, 56 (50, Ark., Kan., O., S.C., Tenn., 55, Conn. Ga., Ky.); RYE, 56 (54, Ill., 30, La., 50, Me.); RYE MEAL, 50; SALT, 50 (56, N.Y.); TIMOTHY SEED, 45 (44, N.Y., 46, Wis.); TURNIPS, 55 (42, Wis., 60, Vt., Ky., 58, Mich., 50, Me., Conn.); WHEAT, 60 (56, Conn.).

CAR. Carrying Capacity of a Ten-ton Freight.—

Flour.....90 barrels	Lumber...6,000 feet
Eggs..130 to 160 barrels	Wheat...300 bushels
Lime.....70 barrels	Corn....400 bushels
Salt.....70 barrels	Oats....780 bushels
Whisky....60 barrels	Barley...300 bushels
Flour.....200 sacks	Flax....360 bushels
Wood.....66 cords	Potatoes..430 bushels
Hogs....50 to 60 head	Apples...370 bushels
Cattle....18 to 20 head	Bran...1,000 bushels
Sheep...80 to 100 head	Butter..20,000 pounds

CARLISLE TABLE OF MORTALITY, Showing how many persons out of 10,000 will die annually until all are deceased.

AGE.	SURVIVORS.	DEATHS.	AGE	SURVIVORS.	DEATHS.	AGE	SURVIVORS.	DEATHS.
0...	10000	1539	35	5362	55	70	2401	124
1...	8461	682	36	5307	56	71	2277	134
2...	7779	505	37	5251	57	72	2143	146
3...	7274	276	38	5194	58	73	1997	156
4...	6998	201	39	5136	62	74	1841	166
5...	6797	121	40	5075	66	75	1675	160
6...	6676	82	41	5009	69	76	1515	156
7...	6594	58	42	4940	71	77	1359	146
8...	6536	43	43	4869	71	78	1213	132
9...	6493	33	44	4798	71	79	1081	128
10...	6460	29	45	4727	70	80	953	116
11...	6431	31	46	4657	69	81	837	112
12...	6400	32	47	4588	67	82	725	102
13...	6368	33	48	4521	63	83	623	94
14...	6335	35	49	4458	61	84	529	84
15...	6300	39	50	4397	59	85	445	78
16...	6261	42	51	4338	62	86	367	71
17...	6219	43	52	4276	65	87	296	64
18...	6176	43	53	4211	68	88	232	51
19...	6133	43	54	4143	70	89	181	39
20...	6090	43	55	4073	73	90	142	37
21...	6047	42	56	4000	76	91	105	30
22...	6005	42	57	3924	82	92	75	21
23...	5963	42	58	3842	93	93	54	14
24...	5921	42	59	3749	106	94	40	10
25...	5879	43	60	3643	122	95	30	7
26...	5836	43	61	3521	126	96	23	5
27...	5793	45	62	3395	127	97	18	4
28...	5748	46	63	3268	125	98	14	3
29...	5698	56	64	3143	125	99	11	2
30...	5642	57	65	3018	124	100	9	2
31...	5585	57	66	2894	123	101	7	2
32...	5528	56	67	2771	123	102	5	2
33...	5472	56	68	2648	123	103	3	2
34...	5417	55	69	2525	124	104	1	1

EXPECTATION OF LIFE.

The subjoined table is based upon the statistics of mortality experience of thirty American Life Insurance Companies, and shows, on an average, the number of years any one may yet expect to live.

AGE.	EXPECTATION OF LIFE.		AGE.	EXPECTATION OF LIFE.		AGE.	EXPECTATION OF LIFE.	
	MALE	FEM.		MALE	FEM.		MALE	FEM.
10..	49.99	48.05	21	42.36	40.19	32	34.38	33.69
11..	49.32	47.21	22	41.65	39.50	33	33.65	33.06
12..	48.64	46.40	23	40.93	38.96	34	32.91	32.42
13..	47.95	45.64	24	40.21	38.38	35	32.17	31.78
14..	47.26	44.91	25	39.49	37.80	36	31.43	31.13
15..	46.57	44.19	26	38.77	37.23	37	30.70	30.47
16..	45.88	43.49	27	38.04	36.66	38	29.96	29.81
17..	45.18	42.79	28	37.31	36.08	39	29.22	29.16
18..	44.48	42.12	29	36.58	35.49	40	28.48	28.48
19..	43.78	41.46	30	35.85	34.89	41	27.75	27.82
20..	43.07	40.82	31	35.12	34.28	42	27.01	27.15

AGE.	EXPECTATION OF LIFE.		AGE.	EXPECTATION OF LIFE.		AGE.	EXPECTATION OF LIFE.	
	MALE	FEM.		MALE	FEM.		MALE	FEM.
43..	26.28	26.45	62	13.34	13.10	81	4.55	4.88
44..	25.55	25.74	63	12.74	12.60	82	4.44	4.71
45..	24.82	25.02	64	12.16	12.05	83	4.17	4.45
46..	24.09	24.30	65	11.60	11.51	84	3.93	4.26
47..	23.38	23.57	66	11.04	10.98	85	3.73	3.98
48..	22.66	22.83	67	10.50	10.47	86	3.53	3.76
49..	21.95	22.09	68	9.97	9.97	87	3.34	3.56
50..	21.24	21.33	69	9.46	9.48	88	3.16	3.36
51..	20.54	20.59	70	8.97	9.00	89	3.00	3.18
52..	19.84	19.87	71	8.48	8.57	90	2.84	3.01
53..	19.15	19.15	72	8.02	8.13	91	2.69	2.85
54..	18.47	18.44	73	7.57	7.70	92	2.53	2.70
55..	17.80	17.73	74	7.14	7.31	93	2.41	2.55
56..	17.13	17.03	75	6.72	6.94	94	2.29	2.46
57..	16.47	16.35	76	6.32	6.59	95	2.17	2.29
58..	15.83	15.67	77	5.93	6.25	96	2.06	2.17
59..	15.19	15.02	78	5.57	5.88	97	1.95	2.06
60..	14.56	14.37	79	5.21	5.56	98	1.85	1.95
61..	13.94	13.73	80	4.87	5.29	99	1.76	1.86

CAST IRON and **TIMBER.** Comparative strength of.—The following table shows the transverse strength of timber and cast iron one foot long and one inch square:

MATERIALS.	BREAKING WEIGHT-lbs.	WEIGHT BORNE WITH SAFETY-lbs.
Ash, seasoned	175	55
Chestnut, seasoned	170	54
Hickory, seasoned	270	90
White Oak	240	80
White Pine, seasoned	135	45
Yellow Pine, seasoned	150	50
Iron (cast)	5,781	1,921

CATTLE. To Estimate the Weight of.—Multiply the girth in inches, just back of the shoulders, by the number of inches from the square of the buttock to the point of the shoulder-blade, and divide the product by 144, which will give the number of superficial feet. If the girth is from 3 to 5 feet, multiply the number of superficial feet by 16, which will give the weight of the animal. If the animal has a girth of from 5 to 7 feet, multiply by 23; if from 7 to 9, multiply by 31; if less than 3 feet, multiply by 11.

Many circumstances, as mode of fattening, condition, breed, etc., influence the weight, but the foregoing will be found approximately correct.

CHARCOAL. Weight of, and proportion from different woods.—The best quality of charcoal is made from beech, chestnut, maple, oak, and pine. Wood will furnish, when properly burned, about 23 per cent. of coal. Oak charcoal absorbs about 4.28 and pine 8.9 per cent of water. One bushel of charcoal contains 2,747.7 cubic inches, and if made from red or white pine, will weigh 43 lbs.; if from oak, or triturated, about 135 lbs.

CASTINGS, Shrinkage of.—The allowance for the shrinkage in castings should be for each foot in length, as follows: Cast iron pipes, ⅛ inch; Cast iron beams and girders, ⅛ inch; Cast iron cylinders (large), ⅛; (small) ⅛; Brass, ⅛; Lead, ⅛; Zinc, ¼; Copper, ¼.

CHIMNEYS, Number of brick for each foot in height.—

SIZE OF CHIMNEY	SIZE OF FLUE	NUMBER BRICKS TO EA. FOOT IN HEIGHT
16 x 16	8 x 8	30
20 x 20	12 x 12	40
16 x 24	8 x 16	40
20 x 24	12 x 16	45

CHICKENS, Laying Capacity of Different Varieties.—Light Brahmas and Partridge Cochins,—Eggs, 7 to the pound; lay 130 per annum.

Dark Brahmas—Eggs, 8 to the pound; lay 130 per annum.

Black, White, and Buff Cochins—Eggs, 7 to the pound; lay 115 per annum.

Plymouth Rocks—Eggs, 8 to the pound, lay 150 per annum.

Houdans—Eggs, 8 to the pound; lay 150 per annum.

La Fleche—Eggs, 7 to the pound; lay 130 per annum.

Creve Cœurs—Eggs 8 to the pound; lay 140 per annum.

Black Spanish—Eggs, 7 to the pound; lay 140 per annum.

Leghorns—Eggs, 8 to the pound; lay 160 per annum.

Hamburgs—Eggs, 9 to the pound; lay 150 per annum.

Polish—Eggs, 9 to the pound; lay 125 per annum.

Dominique—Eggs, 9 to the pound; lay 135 per annum.

Games—Eggs, 9 to the pound; lay 130 per annum.

Bantams—Eggs, 16 per pound; lay 90 per annum.

CIRCULAR MEASURE.—60 seconds = 1 minute; 60 minutes = 1 degree; 30 degrees = 1 sign; 12 signs = 1 circle; 90° = a Quadrant; 60° = a Sextant; 360° = a Circle, large or small.

CISTERNS, To find contents.—See Cistern or Mensuration (Index). The annexed table gives the number of gallons contained in the clear between the brick work for each ten inches of depth.

Diam.	Gals.	Diam.	Gals.	Diam.	Gals.
2 ft. equals	19	6 ft. equals	176	10 ft. equals	489
2½ "	30	6½ "	207	11 "	592
3 "	44	7 "	240	12 "	705
3½ "	60	7½ "	275	13 "	827
4 "	78	8 "	313	14 "	959
4½ "	97	8½ "	353	15 "	1101
5 "	122	9 "	396	20 "	1958
5½ "	148	9½ "	461	25 "	3059

CLOTH MEASURE.—2¼ inches = 1 nail; 4 nails = 1 quarter; 4 quarters = 1 yard.

COINS, Value of foreign.—The value of foreign coins is at different times subject to slight variations, but the following may be taken as about the average value:

NAME.	COUNTRY.	VALUE.	NAME.	COUNTRY.	VALUE.
Bolivar, Venezuela, &c.		$0.14	Milreis, Brazil		$0.55
Boliviano, Bolivia		0.70	"	Portugal	1.08
Crown, Sweden		0.27	Peseta, Spain		0.19
"	Denmark	0.27	Peso, Nicaragua		0.70
"	Norway	0.27	"	Honduras	0.70
Dollar, Mexico		0.76	"	Guatemala	0.70
"	Liberia	1.00	"	Argentine	0.96
"	Canada	1.00	"	Chili	0.91
Drachma, Greece		0.19	"	Colombia	0.70
Florin, Netherlands		0.40	"	Cuba	0.93
"	Austria	0.35	Piastre, Turkey		0.04
Franc, Belgium		0.19	Pound, Egypt		4.94
"	France	0.19	Pound, England		4.86
"	Switzerland	0.19	Rouble, Russia		0.56
Gourde, Hayti		0.96	Rupee, India		0.33
Lira, Italy		0.19	Sol, Peru		0.70
Mahbub, Tripoli		0.63	Sucre, Ecuador		0.70
Mark, Germany		0.24	Yen, Japan		0.99

COINS, Of U.S., Fineness of.—The gold coins are nine-tenths fine; the silver coins, nine-tenths fine; the copper-nickel coins, such as the 5-cent and the 3-cent pieces, are one fourth nickel and three-fourths copper; the bronze coins are 95 per cent copper and 5 per cent tin and zinc. The alloy in the gold coins is silver and copper; in the silver coins, copper.

COMPARATIVE YIELD of Various Grains, Vegetables, and Fruits.—

NAME.	LBS. PER ACRE.	NAME	LBS. PER ACRE.
Apples	8,000	Mangel Wurzel	22,000
Barley	1,600	Peaches	5,000
Beans	2,000	Oats	2,000
Cabbage	10,900	Onions	2,800
Carrots	6,800	Parsnips	11,200
Cherries	2,000	Pears	5,000
Clinque foil grass	5,600	Peas	1,900
Clover Seed	200	Plums	2,000
Corn, Indian	3,000	Potatoes	7,500
Grass	1,000	Turnips	8,500
Hay	4,500	Vetches, green	10,000
Hops	442	Wheat	1,200

COMPOSITION OF SOLDERS.—Fine Solder is an alloy of two parts of Block Tin to one of Lead. Glazing Solder, equal parts of Block Tin and Lead. Plumbing Solder, one part Block Tin, two parts Lead.

WEIGHTS & COUNTING MEASURES, &c.

COMPOSITIONS, Proportions of Various.—
Babbitt's Metal....Tin 89, Copper 2.7, Antimony 7.3.
Church Bells.....Copper 80, Zinc 5.6, Tin 11, Lead 4.3.
Fine Yellow Brass.....Copper 66, Zinc 34.
German Silver.....Copper 33.3, Zinc 33.4, Nickel 33.3.
Gongs.....Copper 81.6, Tin 18.4.
Gun Metal, Valves, &c. Copper 90, Tin 10.
Lathe Bushes.....Copper 80, Tin 20.
Machinery Bearings..Copper 87.5, Tin 12.5.
Muntz Metal.....Copper 60, Zinc 40.
Sheathing Metal....Copper 56, Zinc 44.
White Brass.....Copper 10, Zinc 80, Tin 10.

COOKS, Weights for ad of.—
One lb. broken loaf sugar = 1 quart; 1 lb. and 1 oz. powdered white sugar = 1 quart; 1 lb. and 2 oz. best brown sugar = 1 quart; 1 lb. soft butter = 1 quart; 1 lb. and 2 oz. Indian meal = 1 quart; 1 lb. wheat flour = 1 quart; 4 large tablespoonfuls = ½ gill; a common sized tumbler = ½ pint; a common sized wine-glass = ¼ gill; a large wine-glass = 2 oz.; a teacup = ½ gill; a tablespoonful = ½ oz. (See Apothecaries' Weight).

CORN, in Crib or Bed, Measurement of.—See Mensuration (Index).

CORDWOOD, Relative Weights of.—A cord of hickory weighs about 4,500 lbs.; a cord of beech, 3,225 lbs.; hard maple, 2,850; Ash, 3,450; pitch pine, 1,900; red oak, 3,250; Lombardy poplar, 1,800.

CREMATION.—A body weighing 140 lbs., in burning 55 minutes, will produce 3 lbs. of ashes.

COUNTING, Time Required for.—Assuming that a person can count at the rate of 200 per minute, for 12 hours a day, to count,
1,000,000, would require 6 days 11 hr. 20 min.
1,000,000,000, " 19 yr. 4 " 18 " 20 "
1,000,000,000,000, " 19,012 " 311 " 5 " 20 "
1,000,000,000,000,000 would require more than 19,000,000 years

CURRENTS IN RIVERS, Rate of flow necessary to carry off different substances.—
River mud, liquid earth, etc., 3 inches per second; brown pottery clay, 4 in. per sec.; common clay, 6 in. per sec.; yellow sand, loamy, 8 in. per sec.; common river sand, 1 foot per sec.; gravel, size of small seeds, 3 in. per sec.; gravel, size of peas, 7 in. per sec.; gravel, size of beans, 1 ft. per sec.; coarse ballast, 2 ft. per sec.; sea shingle, about one in. in diam., 2½ ft. per sec.; large shingle, 3 ft. per sec.; angular flints, size of hen's eggs, 3½ ft. per sec.; broken stones, 4 ft. per sec.; soft shistose rock, 4½ ft. per sec.; flaky rock, 6 ft. per sec.; hard rocks, 10 ft. per sec.

CUBIC FOOT WEIGHTS of Various Materials.—

Antimony 421.6	Fir..... 34.3	Pine (Pitch)	41.0
Ash (wood) 52.8	Gold (pure) .1204.4	Pine (White)	29.6
Beech..... 53.2	Granite.... 139.0	Pine (Yellow)	33.8
Brass..... 537.7	Ice..... 58.08	Plaster Paris	105.0
Brick..... 100.0	Iron (cast) . 450.5	Quartz ..	166.0
Cedar..... 37.8	Iron (wr't) .486.6	Salt (com.)	133.0
Charcoal.. 18.2	Lead 708.4	Sand....	94.5
Clay..... 120.0	Lignum Vitæ 83.2	Silver (pure)	654.9
Coal, Anth. 53.0	Mahogany 66.5	Spruce ..	31.3
Coal, Bitum. 50.0	Maple 46.8	Sulphur .	121.0
Copper.... 554.5	Marble.... 141.0	Walnut .	55.0
Cork..... 15.0	Mercury (60°) 848.5	Water (fresh)	62.5
Earth, com'n 135.0	Mill-stone 130.0	" (salt)	64.3
Earth, loose 90.0	Oak (Live) 70.0	" (distilled)	62.3
Elm..... 42.0	Oak (White) 45.2	" (Dead Sea)	77.4

CUBIC OR SOLID MEASURE.—1728 cubic inches = 1 cubic foot; 27 cu. ft. = 1 cu. yd.; 128 cu. ft. = 1 cord; 8 cord feet = 1 cord; 16 cu. ft. = 1 cord foot; 24½ cu. ft. = 1 perch of stone; 40 cu. ft. = 1 ton of ship cargo; 50 cu. ft. = 1 ton of square timber; 2150.42 cu. in. = 1 bushel; 231 cu. in. = 1 gallon (wine); 282 cu. in. = 1 gallon (ale or beer—nearly obsolete); 1 cu. ft. = ⅘ of a bushel.

DAILY SAVINGS, at Compound Interest.—
$0.02½ daily = $10.00 yearly = $130 in 10 years = $2,900 in 50 years.
$0.05½ daily = $20 yearly = $260 in 10 years = $5,800 in 50 years.
$0.11 daily = $40 yearly = $520 in 10 years = $11,600 in 50 years.
$0.27½ daily = $100 yearly = $1,300 in 10 years = $29,000 in 50 years.
$0.55 daily = $200 yearly = $2,600 in 10 years = $58,000 in 50 years.
$1.10 daily = $400 yearly = $5,200 in 10 years = $116,000 in 50 years.

DAY, Length at Various Capitals.—

	LONGEST DAY	SHORTEST DAY
Amsterdam.....	16 hr. 44 min.	7 hr. 33 min.
Berlin.....	16 " 38 "	7 " 30 "
Boston.....	15 " 18 "	9 " 58 "
Cairo.....	14 " 00 "	10 " 10 "
Calcutta.....	13 " 26 "	10 " 42 "
Cape Town.....	14 " 22 "	9 " 48 "
Copenhagen.....	17 " 20 "	6 " 54 "
Dublin.....	16 " 56 "	7 " 18 "
Edinburg.....	17 " 32 "	6 " 50 "
London.....	16 " 32 "	7 " 44 "
Madrid.....	15 " 00 "	9 " 14 "
Naples.....	15 " 03 "	9 " 14 "
Panama.....	12 " 36 "	11 " 34 "
Paris.....	16 " 06 "	8 " 10 "
Pekin.....	14 " 58 "	9 " 16 "
St. Petersburg....	18 " 14 "	5 " 42 "
Stockholm.....	18 " 35 "	5 " 54 "
Sitka.....	18 " 16 "	6 " 10 "
Vienna.....	15 " 58 "	8 " 17 "
Washington.....	14 " 52 "	9 " 22 "

DAY'S FOOD, Expressed in Foot Tons.—A man of average weight, and doing a fair day's work, requires, as has been ascertained by experiment, so much food as, converted into mechanical work, would raise 4,000 tons one foot high.

DIAMOND WEIGHT.—

16 Parts	= 1 Grain	= .8 Grain Troy.	
4 Grains	= 1 Carat	= 3.2 "	"
20 Parts Diamond Wt.	= 1	"	"

DIGIT.—The twelfth part of the diameter of the Sun or Moon, used in measuring the extent of a partial eclipse.

DISTANCE ONE CAN SEE.—The earth being round, its convexity limits the vision even on a level like the sea. The line of vision on the sea-shore of a man of ordinary height, say six feet (see table), is intercepted by the horizon at 3.24 miles. If he were looking at a flag on a mast-head 44 ft. in height, the flag would seem to be on the horizon if it were 9.35 miles distant. In this case add the height of the object 44 ft. to the height of the eye from the ground 6 ft. = 50 ft., and find the corresponding distance in the table.

HGHT. FEET	DIST. MILES	HGHT. FEET	DIST. MILES	HGHT. FEET	DIST. MILES	HGHT. FEET	DIST. MILES	HGHT. FEET	DIST. MILES
4	2.63	11	4.39	20	5.92	65	10.2	500	29.6
5	2.96	12	4.58	25	6.61	80	11.8	1000	33.4
6	3.24	13	4.77	30	7.25	100	13.2	2000	59.2
7	3.49	15	5.12	35	7.83	150	16.2	3000	72.5
8	3.73	17	5.45	40	8.37	200	18.7	4000	83.7
9	3.96	18	5.61	45	8.87	300	22.9	5000	95.5
10	4.18	19	5.77	50	9.35	400	26.7	Mi.	96.1

DIVISIBILITY'S SUSCEPTIBILITY.—Dissolve a grain of nitrate of lead in 500,000 grains of water, and pass through the solution a current of sulphuretted hydrogen, when the whole liquid becomes sensibly discolored. Now a grain of water may be regarded as equaling a drop, and a drop may be easily spread out so as to cover a square inch of surface. But under an ordinary microscope the millionth part of a square inch may be distinguished by the eye. The water, therefore, could be divided into more than 500,000,000,000 parts. But the lead in a grain of nitrate of lead weighs 0.62 grains; an atom of lead cannot weigh more than 1,310,000,000,000th part of a grain, while the atom of sulphur, which, combined with the lead, rendered it visible, could not weigh more than one half of 1,000,000,000,000th part of a grain. (See Counting in first column on this page, for time required for counting the atoms in a grain.)

DIGESTION OF FOOD, Time required for.—

ARTICLES.	hrs.	min.	ARTICLES.	hrs.	min.
Apples, sweet, raw..	1	30	Milk, boiled....	2	..
" sour " ..	2	..	"	2	15
Barley, boiled ...	2	..	Mutton, broiled.	3	..
Beans, pod, boiled..	2	30	" boiled .	3	..
Beefsteak, broiled..	3	..	" roasted.	3	15
Beets & Beans, boiled	3	45	Oysters, raw...	2	55
Bread, fresh-baked.	3	30	" stewed .	3	30
" corn, baked.	3	15	" Beaum't "	3	30
Butter.....	3	30	Parsnips, boiled	2	30
Cabbage, raw....	2	..	Pork, salt, boiled.	3	15
" boiled..	4	30	Rice, boiled	1	..
Cake, sponge, baked	2	30	Sago, boiled....	1	45
Carrot, boiled ...	3	15	Salmon, salt, boil.	4	..
Cheese, old.....	3	30	Sausage, broiled.	3	20
Custard, baked..	2	50	Soup, barley ..	1	30
Eggs, whipped...	1	30	" bean...	3	..
" fresh, raw.	2	..	" chicken..	3	..
" roasted ..	2	15	Suet, beef, boiled	5	30
" soft-boiled.	3	..	Tapioca, boiled..	2	..
" hard "	3	30	Trout, fresh, fried.	1	30
Goose, roasted..	2	30	Turkey, roast..	2	30
Green corn, boiled.	3	45	Turnips, boiled.	3	30
Hash, warmed ..	2	30	Veal, fresh, fried .	4	30
Liver, beef, broiled .	2	..	Venison, broiled.	1	30

DROP MEASURE.—Nothing is more fallacious than measuring fluids by dropping; since the drops from the lip of a vial vary, chiefly according to the different force of the attraction of cohesion in different liquids. Thus 60 drops of water fill the same measure as 100 drops of laudanum from a lip of the same size. The graduated glass measure used by apothecaries is the only certainty.

DRUGS, Doses of.—See Medicine.

DRY MEASURE.—2 pints = 1 quart; 8 quarts = 1 peck; 4 pecks = 1 bushel. (See Cubic Measure).

DUCTILITY, TENACITY, MALLEABILITY.—Gold may be beaten to 282,000 of an inch in thickness, and an ounce drawn to a length of 50 miles. Platinum is more ductile than any other metal. The same metal does not always manifest the same relative degree of the above properties, as is seen by the table.

TENACITY.	DUCTILITY.	MALLEABILITY. Under Hammers.	Under Rollers.
1. Iron	Platinum	Lead	Gold
2. Copper	Silver	Tin	Silver
3. Platinum	Iron	Gold	Copper
4. Silver	Copper	Zinc	Tin
5. Zinc	Gold	Silver	Lead
6. Gold	Zinc	Copper	Zinc
7. Lead	Tin	Platinum	Platinum
8. Tin	Lead	Iron	Iron

DURABILITY OF WOODS.—Experiments have been made by driving sticks, made of different woods, each two feet long and one and one half inches square, into the ground, only one half inch projecting outward. After the lapse of five years, all those made of oak, elm, ash, fir, soft mahogany, and nearly every variety of pine, were totally rotten; larch, hard pine and teak were decayed only on the outside; acacia was only slightly attacked on the exterior; hard mahogany and cedar of Lebanon were in tolerably good condition, and Virginia cedar was as sound as when put into the ground.

DYNAMITE, Force of.—The power developed by the explosion of a ton of dynamite is equal to 45,675 foot-tons. 71,000 tons of ordinary building stone, if arranged in the form of a cube, would make only about 90 feet to the side, and it it were possible to concentrate the entire force of a ton of blasting gelatine to point, the force from the explosion would lift the mass only one foot. (See Explosives).

EARTH, Weight of.—Baily contrived a pair of scales that enabled him to approximately ascertain the weight of the earth, and that it contained within itself somewhere about 6,049,836 billion tons of matter.

EARTH, SAND, ETC., Weight of per Cubic Foot.—See Cubic-Foot Weights, also Specific Gravity.

EGGS, Weight of.—See Chickens.

ELECTRICITY, Measure of.—

Name.		Unit of	How obtained.	Log*	Equivalent.
Ohm	R	Resistance	The Electrical resistance of a column of mercury 106 centimeters long and of 1 sq. millimetre section.	10^9	1 true ohm = 1.012 British Association ohms.
Ampere	C	Current	Is that current that decomposes .00009324 grammes of water per second.	10^1	Deposits 1.118 milligrams of silver per second.
Volt	E	Electromotive Force	One ampere of current passing through a substance having 1 ohm of resistance = 1 volt.	10^8	.926 of a standard Daniel Cell.
Coulomb	Q	Quantity	A current of 1 ampere in 1 sec. of time.	10^1	Deposits 1.118 milligrms of silver
Farad	K	Capacity	The capacity that a current of 1 ampere per sec. (=1 coulomb) charges it to potential of 1 volt.	10^9	2.5 knots of D.U.S. cable.
Microfarad	K		1-millionth of a farad	10^{15}	
Watt	Pw	Power	Power of 1 ampere current passing through resistance of 1 ohm.	10^7	.0013405 (or 1/746) of a horse power.
Joule	W.j.	Work	Work done by 1 watt of elec. power per sec.	10^7	.238 units of heat (Therms).

* Electro-Magnetic Units.—See Technical Works.

ENERGY, Amount Required to do Different Things, Expressed in Foot Tons.—*(A foot Ton is the amount of energy necessary to raise one ton one foot).*—Walking 1 mile, 171; walking 4 miles, 701; carrying 60 lbs. 1 mile, 25; pedlar's day's work, 33; convict's day's work, 310; dock laborer's day's work, 315; pile-driving, 332; pavior, 352; turning a winch, 374; man's ordinary work, 300; very hard work, 403.

ENGLISH MONEY.—

4 Farthings (far.)	=	1 Penny (d.) = $\frac{1}{240}$ = 0.02
12 Pence	=	1 Shilling (s.) = 0.24
20 Shilling	=	1 Pound (£) = 4.86

EQUIVALENTS.—

Volume.	*Weight.*
1 gal., Wine Meas. = 231 cu. in.	1 lb. Av. = 7000 gr. Troy.
1 gal., Beer " = 282 "	1 lb. Apot. or T. = 5760 "
1 gal., Dry " = 268.8 "	1 oz. Av. = 437.5 "
1 gal. (Eng.) = 277.2 "	1 oz. Ap. or T. = 480 "
1 bu. (U.S.) = 2150.42 "	1 carat, Assay. = 240 "
1 bu. (Eng.) = 2218.19 "	1 carat, diad = 3.2 "
1 bu., heaped = 2747.7 "	1 cu. ft. pure wat. = 1000 oz. Av.

EXPANSION and CONTRACTION.—The following table exhibits the lineal dilation of bodies from 32° to 212°.

Flint glass	1/331	Brass, cast	1/534
Glass (barom. tube)	1/1109	Solder, tin 1, lead 2	1/355
" solid rod	1/933	Bismuth	1/718
" cask, prism of	1/833	Speculum metal	1/517
Platinum	1/1167	Iron	1/810
Palladium	1/1000	Steel	1/811
Gold	1/681	Tin	1/469
Silver	1/525	Lead	1/350
Copper 8 parts, tin 1	1/556	Zinc	1/340
Copper	1/586	Mercury, in volume	1/555
Copper 2, zinc 1	1/482	Water	1/9
Brass 16, tin 1	1/524	Alcohol	1/9
Brass wire	1/573	All the gases	1/489

EXPECTATION OF LIFE.—See Carlisle Table.

EXPLOSIVES, Force of Various Kinds.—Most explosives derive their energy from nitro-glycerine. Dynamite is nitro-glycerine compounded with rotten-stone, or silicious, or infusorial earth, tripoli, etc. Dualin is a compound of nitro-glycerine and saw-dust. Sebastine Powder is a mixture of plaster of Paris and nitro-glycerine. The subjoined table is by M. Berthelot. (See DYNAMITE).

EXPLOSIVE.	HEAT.	VOLUME OF GAS.	EXPLOSIVE FORCE.
Nitro-glycerine	1320	0.710 liter.	939
Picrate	1422	0.337 "	478
Picric Acid, with Chl. Potash	1424	0.408 "	582
Gun Cotton "	1420	0.484 "	680
Picrate Potash	578	0.585 "	680
Picric Acid	687	0.780 "	536
Gun Cotton	590	0.801 "	472
Powder, base Chl. Potash	971	0.318 "	309
Powder, base Nitrate Soda	764	0.248 "	190
Powder, sporting	641	0.216 "	139
Powder, artillery	608	0.225 "	137
Powder, blasting	509	0.173 "	88

FECUNDITY OF ANIMALS.—The camel, elephant, and horse seldom produce more than one at a birth; the lion 1, often 2 or 3, sometimes 5 or more. The fecundity of the rabbit is marvelous, it beginning to breed at the age of six months, having from 6 to 7 litters a year, each from 4 to 12, or upwards.

A codfish has been found to produce 3,686,760 eggs or spawn, and a ling upward of 19,000,000. Herrings from 21,285 to 36,960. Mackerel, 454,061. Soal, 38,772; flounder, 1,357,403. Lobster, 21,699; prawn, 3,800; shrimp, 6,800.

M. Von Gleichen, a German naturalist, has made the annexed calculation for the common house fly.

A fly lays four times during the summer, each time eighty eggs 320

Half of these are supposed to be females, so that each of the four broods produce forty:

1. First eighty of the forty females of the first brood, lay four times 12,800

The first eighth of these, or 16,000 females, lay three times 384,000

The second eighth, twice 256,000

The third and fourth eighth, once 256,000

2. The second eighth, or the forty females of the second brood, lay three times 9,600

One sixth of these, three times 384,000

The second sixth, twice 256,000

The third sixth, once 128,000

3. The third eighth, or the forty females of the third brood, twice 6,400

One fourth of these lay twice 256,000

4. The fourth eighth, or forty females of the fourth brood, once 3,200

Half of these lay once 128,000

Total for one fly in one summer, 2,080,320

FEMININE HEIGHT AND WEIGHT.—(See also Man and Woman (index)).—It is often asked how stout a woman ought to be in proportion to her height. The following table gives a fair indication of the proper proportions:

Height.	Lbs.	Height.	Lbs.
Five feet ..... about	100	Five ft. seven in. ab't	150
Five ft. one in. "	106	Five ft. eight in. "	155
Five ft. two in. "	113	Five ft. nine in. "	163
Five ft. three in. "	119	Five ft. ten in. "	169
Five ft. four in. "	130	Five ft. eleven in. "	176
Five ft. five in. "	138	Six ft. ..... "	180
Five ft. six in. "	144	Six ft. one in. "	188

FEEDING TABLE, Showing the Amount of Hay, or its Equivalent, per day required by each 100 pounds of Live Weight of Animals.—

Working horses	3.08 lbs.	Dry cows	2.42 lbs.
" oxen	2.40 "	Young cattle	3.08 "
Fatting oxen	5.00 "	Steers	2.84 "
" when fat	4.00 "	Pigs	3.00 "
Milch cows	2.35 "	Sheep	3.00 "

A horse will consume as much food, aside from corn, as 8 sheep; a cow, as 12 sheep; a fatting ox, as 10 sheep; a two-year-old heifer, as 6 sheep; a three-year-old heifer, as 8 sheep; a one-year-old heifer, as 4 sheep; a calf, as 2 sheep.

FINENESS OF COINS.—See Coins.

FLOUR, Amount that wheat should yield.—A bushel of good wheat, 60 lbs., should yield about 48 lbs. of flour, 8 lbs. of shorts, and 4 lbs. of bran. The following is a fair average, which gives 38.45 lbs. of flour to the bushel:

Weight of wheat	1,496 lbs.
" " " flour	952 lbs.
" " " bran	240 "
" " " screenings	32 "
" " " middlings	88 "
" " " toll	148 "
" " " waste	26 " —1486 lbs.

FLUIDS, PRESSURE OF.—1. Fluids submitted to pressure transmit it undiminished in every direction. 2. The pressure sustained by any surface is proportional to its area. 3. The direction of the pressure at any point is perpendicular to the surface at that point. 4. The pressure on the bottom of a vessel is independent of the form of the vessel. 5. The pressure is proportioned to the density of the liquid. 6. The pressure exerted by a fluid is proportional to its depth. 7. A fluid is in equilibrium, or at rest, only when its particles are restrained by some vessel or its equivalent.

WEIGHTS & CONTINUED MEASURES

FOOD, Percentage of Nutrition in Various Articles.—

ARTICLE.	PER CENT.	ARTICLE.	PER CENT.
Apples	16	Grapes, raw	27
Barley, boiled	92	Melons, raw	3
Beans, boiled	87	Milk	7
Beef, raw	26	Mutton, broiled	30
Beets	14	Oatmeal Porridge	75
Bread, rye	79	Peaches	20
Bread, barley	88	Peas, boiled	93
Bread, wheat	90	Plums, raw	29
Bread, corn	91	Pork, roast	24
Butter	92	Potatoes	23
Cabbage	7½	Poultry, roast	26
Codfish, boiled	21	Rice, boiled	88
Cucumbers, raw	2	Turnips, boiled	5
Currants	10	Veal, fried	24
Eggs, whipped	13	Venison, boiled	22

FOOD, Digestion of.—See Digestion.

FOOD, Constituents of.—(By A.H. Church).

	Albuminoids.	Per Cent.	Oil	
Eggs				
Milk		4.1		3.7
Butter		1.0		88.0
Cheese		28.2		29.6
Beef		8.0		30.0
Mutton		5.0		40.0
Pork		4.5		50.0

	Albuminoids.	Starch.	Oil.
Oat Meal	16.1	63.0	10.1
Wheat Flour	10.5	74.0	
Rye Flour	10.5	71.0	1.6
Indian Corn	9.0	64.5	5.0
Buckwheat	15.0	63.3	3.4
Rice	7.5	76.0	0.5
Beans	23.0	52.0	2.3
Potatoes	2.3	15.4	0.3
Sweet Potatoes	1.5	15.0	—

FOOD, Relative Value of Different Kinds for Stock.—One hundred pounds of good hay for stock are equal to:

Articles.	Lbs.	Articles.	Lbs.
Apples	122	Oat-straw	317
Beans	28	Oats	59
Beets	669	Oil-cake, linseed	43
Clover, red, green	373	Peas, dry	38
Carrots	371	Potatoes	350
Corn	62	Rye-straw	425
Clover, red, dry	88	Rye	53
Lucerne	89	Turnips	469
Mangolds	369	Wheat	45

FOOT-POUND.—In order to estimate the efficiency of any work or force, an arbitrary unit of work has been adopted called a foot-pound. The foot-pound is the mechanical value of a force capable of raising one pound through a vertical space of one foot. The work of the power is equal to the product of an equivalent weight in pounds multiplied by the vertical height in feet through which it passes. The work of the load is found in a similar manner.

FOREIGN COINS, Value of.—See Coins.

FOREIGN MEASURES, Reduced to American Equivalents.—English league = 3 miles; French league = 3 miles; French posting league = 2 miles, 743 yards; Spanish judicial league = 2 miles, 1,115 yards; Spanish common league = 5 miles, 378 yards; Portuguese league = 3 miles, 1,480 yards; Flemish league = 3 miles, 1,584 yards; Russian werst = 1,167 yards; Turkish beim = 1 mile, 66 yards; Persian parasang = 3 miles, 806 yards; "A Sabbath day's journey" = 1,155 yards; "A day's journey" = 33⅓ miles; "A reed" = 10 feet, 11⅓ inches; "A palm" = 3 inches; "A fathom" 6 ft.; A Greek foot = 12.1 inches; A span = 10.9 inches.

FREEZING MIXTURES.—No ice is required, and the water used should not be warmer than 50° Fahrenheit.

Nitrate Ammonia and water, each one part, makes a change from 50° to 4°.

Muriate Ammonia and Nitrate of Potash, each five parts, from 50° down to 10°, if sixteen parts water be added.

Muriate Ammonia five parts, Nitrate of Potash five parts, Sulphate of Soda eight parts, Water sixteen parts, 50° to 4°.

Sulphate of Soda three parts, Dilute Nitric Acid two parts, 50° down to −3°.

Nitrate of Ammonia, Carbonate of Soda, and Water, each one part, 50° to −7°.

Phosphate Soda nine parts, Dilute Nitric Acid four parts, 50° to −12°.

Sulphate of Soda five parts, Dilute Sulphuric Acid four parts, 50° to 3.

Sulphate of Soda six parts, Muriate Ammonia four parts, Nitrate of Potash two parts, Dilute Nitric Acid four parts, 50° to −10°.

Sulphate of Soda six parts, Nitrate of Ammonia five parts, Dilute Nitric Acid four parts, 50° to −14°.

FRICTION, Coefficients of.—(Morin).

Materials.	No Unguent. Starting	No Unguent. In Motion
Oak upon oak, fibers parallel	.625	.478 .108
Oak upon oak, fibers cross	.540	.324 .143
Wrought iron upon oak	.619	.619 .065
Wrought iron upon wrought iron	.137	.138 .077
Wrought iron upon cast iron	.194	.194 .076
Wrought iron upon brass	....	.172 .075
Cast iron upon cast iron	.162	.152 .144
Brass upon cast iron	....	.217 .107

Friction of Wagons on Level Roads.

Loose sand	0.25	Macadamized road	.033
Common by-road	0.1	Well-paved road	.014
Dry highway	0.025	Railroads	.0059

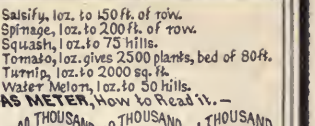
FRUIT, SUGAR IN.—(Mulhall).—The proportion of sugar in various fruits is:

Apple	7.9	Peach	1.6
Mulberry	9.2	Raspberry	4.0
Pear	9.4	Strawberry	5.7
Cherry	10.8	Currant	6.1
Grape	14.9	Gooseberry	7.2

GARDEN SEEDS, Quantity required for a given space.—

Asparagus, 1oz. produces	1000 plants—bed 12 ft. sq.
" roots, 1000 plant	2 bed 4 ft. by 225 ft.
English Dwarf Beans, 1qt. plants	row 125 ft. long.
French " 1qt. "	300 "
Beans, pole, large, 1qt. plants	100 hills.
Beans, pole, small, 1qt.	300 hills, or 250 ft. row.
Beets, 10 lbs. per acre, or 1oz. for	150 ft. row.
Brocoli and Kale, 1oz.	2500 plants, 40 sq. ft. ground.
Cabbage, same as Broccoli, but	60 sq. ft. ground.
Cauliflower, same as cabbage.	
Carrot, 1oz. to	150 ft. of row.
Celery, 1oz. gives	7000 plants, 8 sq. ft. of ground.
Cucumber, 1oz. for	150 hills.
Cress, 1oz. sows a bed	16 ft. square.
Egg Plant, 1oz. gives	2000 plants.
Endive, 1oz. gives	3000 plants, 80 sq. ft. of ground.
Leek, 1oz. gives	2000 plants, 60 sq. ft. of ground.
Lettuce, 1oz. gives	7000 plants, bed 150 ft. long.
Melon, 1oz. for	120 hills.
Nasturtium, 1oz. sows	25 ft. of row.
Onions, 1oz. sows	200 ft. of row.
Okra, 1oz. "	200 "
Parsley, 1oz. "	200 "
Parsnip, 1oz. "	250 "
Peppers, 1oz. gives	2500 plants.
Peas, 1quart sows	120 ft. of row.
Pumpkin, 1oz. to	50 hills.
Radish, 1oz. to	100 ft. of row.
Salsify, 1oz. to	150 ft. of row.
Spinage, 1oz. to	200 ft. of row.
Squash, 1oz. to	75 hills.
Tomato, 1oz. gives	2500 plants, bed of 80 ft.
Turnip, 1oz. to	2000 sq. ft.
Water Melon, 1oz. to	50 hills.

GAS METER, How to Read it.—



The figures on the index at the right hand denote even hundreds. When the hand completes the entire circuit, it denotes ten hundred, and is registered by the hand in the center circle pointing to one—the interval between any one figure and the next, in center circle, measuring one thousand. The entire round of center circle measures ten thousand, and is registered on the index of the left-hand circle, in which the interval between any two successive figures counts ten thousand. The hands of all three circles are always in simultaneous movement, and the hand of the left-hand circle, at any point between two figures, indicates the consumption of so much fraction of ten thousand, i.e., so many thousands and so many hundreds as are indicated by the mid and the right-hand circles respectively.

The quantity of gas which has passed through the meter since last date is ascertained by reading from the indexes the total amount registered, and deducting therefrom the quantity shown by the indexes at a previous observation.

Total amount registered by the hands show	49,900
Amount at previous observation (dotted lines)	42,500
Amount since last observation	7,400

It will be noticed that the hand on the left-hand circle is just at the margin, but not yet at the center, of the "5." When another 100 of the gas meter is consumed, the hand of the left-hand circle will point exactly at "5," of the mid-circle, exactly at "0," and of right-hand circle exactly at "0,"—indicating 50,000 cubic feet.

The register at all times shows the quantity that has passed through since the meter was first set, and deducting therefrom the amount that has been paid for (without any regard to the time when), we obtain the amount remaining unpaid.

GASES, Specific Gravity of.—See Specific Gravity.

GASES, Weight and Volume of.—

Gases at 32° Fahr., and under one atmosphere of pressure.	Vol. of 1 lb. in cu. ft.	Weight of 1 cu. ft.
Acetic ether	4.075	0.245
Air	12.387	0.080728
Ammoniacal gas	21.017	0.04758
Benzine, vapor of	4.598	0.217
Bromine, vapor of	2.236	0.447
Carbonic acid	8.101	0.12344
Carbonic oxide	12.804	0.0781
Chlorine	5.077	0.197
Chloroform	2.337	0.428
Coal gas	28.279	0.03536
Hydrogen	178.83	0.005592
Hydrogen, light carbureted	22.412	0.04462
Nitrogen	12.723	0.078596
Olefiant gas	12.580	0.0795
Oxygen	11.205	0.089253
Steam, gaseous	19.913	0.05022
Sulphuric acid	5.513	0.1814
Turpentine, vapor of	2.637	0.378

WEIGHTS & MEASURES CONTINUED.

GASES, Expansion of.—See Expansion and Contraction.

GERMINATION OF SEEDS, Time of.—Wheat and millet seed germinate in one day; barley, seven; cabbage, ten; peach, almond, and chestnut, require from eight to twelve months; rose and filbert require twenty-four months. Potatoes buried three-feet deep do not vegetate. If wheat be covered 2 inch deep, it usually appears above the ground in 11 days; 1 inch deep, 12 days; 2 inches deep, 18 days; 6 inches deep, 23 days. A field of wheat after having been buried under an avalanche for 25 years, grew after the snow melted. (See Vitality of Seeds.)

GESTATION, Periods of, in Various Animals.—The period of gestation is longer in herbivorous than in carnivorous animals. The young of the latter are also less developed at birth, their eyes not opening for several days thereafter. Herbivorous animals:—The elephant has about 20½ months' gestation, the giraffe, 14 months; dromedary, 12 months; ass and buffalo, 12 months; mare, upward of 11 months; rhinoceros and cow, 9 months; larger deer, over 8 months; sheep and goats, 5 months; pig, 4 months. Rhodents:—Beaver, 4 months; dormouse, 31 days; rabbit, 30 to 31 days; rat and squirrel, 28 days; guinea-pig, 20 to 21 days. Carnivorous.—Bear, 6 months; lion, 108 days; puma, 79 days; fox, wolf, and dog, 62 to 63 days. Pouched animals:—Kangaroo, 39 days; opossum, 26 days. Cetaceous animals:—Greenland whale, about 10 months. Monkeys:—The most common duration for the varieties of monkeys is 7 months. Oviparous animals:—The goose sits 30 days; swan, 42 days; hens, 21 days; ducks, 30 days; pea-hens and turkeys, 28 days; canaries and pigeons, 14 days; parrots, 40 days. Ovipares.—Human being, 280 days; hippopottamus, 234 days; cat, about 56 days; bat, 40 days; marmoset, 120 days; sapir, 10 to 11 months.

GIANTS, Height of the most noted.—

NAME.	PLACE.	TIME.	HEIGHT-ft.
Og (Deut. 3, 1).....	Bashan	1451 B.C.	Bed=16½
Goliath.....	Palestine	1063 "	11.0
Maximin.....	Rome	235 A.D.	8ft. 6in.
Gabara.....	Rome	269 ? 8 C.	9 " 9 "
John Middleton...	England	1578 A.	9 " 3 "
Patrick Cotter.....	Ireland	1761 "	8 " 7 "
Frederick's Swede..	Sweden	.....	8 " 4 "
Gilly.....	Tyrol	.....	8 " 1 "
Charles Byrne.....	Ireland	1783	8 " 4 "
Big Sam.....	England	1809	8 " 0 "
M. Brice.....	Vosges	1863	7 " 6 "
Robert Hales.....	England	1863	7 " 6 "
Chang-Woo-Gow...	China	1865	7 " 8 "
Martin Van Buren Bates	Kentucky	1871	7 " 0 "
Miss Anna Swan..	Nova Scotia	1871	7 " 0 "

GLASS, Composition of.—

Crown Glass:—Purified sand, 100 parts; limestone, or chalk, 35 to 40 parts; sulphate of soda, 40 to 45 parts; cullet, 50 to 150 parts.

French Plate:—White quartzose sand 100.0 parts; sodic carbonate, 33.3 parts; lime (slaked), 14.3 parts; manganese peroxide, 0.15 parts; cullet, 100.0 parts.

Flint Glass:—Fine white sand, 100 parts; minium (red lead), 63 parts; refined potash, 33 parts; nitre, 10 parts; cullet, 60 to 100 parts.

The following are other proportions for optical and flint glass: Sand, 51 parts; pearl ashes (prepared), 16 parts; litharge, 28 parts (or red lead, 29 parts); niter, 4½ parts; white arsenic, ⅛ part; peroxide of manganese, ⅛ part; cullet of flint glass in proportion as the manufacturer thinks proper.

Bottle Glass:—This is the coarsest glass in common use, and is made from varied proportions of the following: Soap-makers' waste (containing a quantity of soda-salts), fresh water, river sand, brick-dust, calcined lime, and marl.

Colored Glass:—The colors usually employed consist of metallic oxides. Gold yields the most beautiful ruby, crimson, rose, and purple colors. Copper yields ruby red, and emerald green. Cobalt, rich deep blues. Iron, dull green; with alumina, flesh color; combined with chloride of silver, orange yellow. Silver with alumina, beautiful yellow. Uranium, chrysoprase green and canary yellow.

GLASS MEASURE.—1 stone=5 lbs.; 24 stone = 1 seam.

GLASS, Number of Window Lights per Box of 50 Feet.—

SIZE.	NO.	SIZE.	NO.	SIZE.	NO.	SIZE.	NO.
6 by 8 =	150	12 by 22 =	27	15 by 24 =	20	18 by 42 =	9
7 " 9 =	115	12 " 24 =	25	15 " 26 =	19	18 " 46 =	9
8 " 10 =	90	12 " 26 =	23	15 " 28 =	17	18 " 50 =	8
8 " 11 =	82	12 " 28 =	22	15 " 30 =	16	18 " 52 =	8
8 " 12 =	75	12 " 30 =	20	15 " 32 =	15	18 " 56 =	7
9 " 11 =	73	12 " 32 =	19	15 " 34 =	14	18 " 60 =	7
9 " 12 =	67	12 " 34 =	18	15 " 36 =	13	20 " 22 =	16
9 " 13 =	62	12 " 36 =	17	15 " 38 =	13	20 " 24 =	15
9 " 14 =	57	13 " 14 =	40	15 " 40 =	12	20 " 26 =	14
9 " 15 =	53	13 " 15 =	37	16 " 16 =	28	20 " 28 =	13
9 " 16 =	50	13 " 16 =	35	16 " 18 =	25	20 " 30 =	12
9 " 18 =	45	13 " 18 =	31	16 " 20 =	23	20 " 32 =	11
10 " 12 =	60	13 " 20 =	28	16 " 22 =	21	20 " 34 =	11
10 " 13 =	55	13 " 22 =	25	16 " 24 =	19	20 " 36 =	10
10 " 14 =	52	13 " 24 =	23	16 " 26 =	17	20 " 38 =	10
10 " 15 =	48	13 " 26 =	21	16 " 28 =	16	20 " 40 =	9
10 " 16 =	45	13 " 28 =	20	16 " 30 =	15	20 " 42 =	9
10 " 17 =	43	13 " 30 =	19	16 " 32 =	14	20 " 44 =	8
10 " 18 =	40	13 " 32 =	17	16 " 34 =	13	20 " 46 =	8
10 " 20 =	36	14 " 15 =	34	16 " 36 =	13	20 " 48 =	8
10 " 22 =	33	14 " 16 =	32	16 " 38 =	12	20 " 50 =	7
10 " 24 =	30	14 " 17 =	31	16 " 40 =	11	20 " 54 =	7
10 " 26 =	28	14 " 18 =	29	16 " 42 =	11	20 " 58 =	6
10 " 28 =	26	14 " 20 =	26	16 " 44 =	10	20 " 64 =	6
10 " 30 =	24	14 " 22 =	24	16 " 46 =	10	22 " 24 =	14
11 " 12 =	55	14 " 24 =	22	16 " 48 =	9	22 " 26 =	13
11 " 13 =	51	14 " 26 =	20	16 " 52 =	9	22 " 28 =	12
11 " 14 =	47	14 " 28 =	19	16 " 54 =	8	22 " 30 =	11
11 " 15 =	44	14 " 30 =	17	16 " 60 =	8	22 " 32 =	10
11 " 16 =	41	14 " 32 =	16	18 " 20 =	20	22 " 34 =	10
11 " 17 =	39	14 " 34 =	15	18 " 22 =	18	22 " 36 =	9
11 " 18 =	37	14 " 36 =	14	18 " 24 =	17	22 " 40 =	8
11 " 20 =	33	14 " 38 =	14	18 " 26 =	16	22 " 42 =	8
11 " 22 =	30	14 " 40 =	13	18 " 28 =	14	22 " 44 =	7
11 " 24 =	27	14 " 42 =	12	18 " 30 =	14	22 " 48 =	7
12 " 14 =	43	14 " 44 =	12	18 " 32 =	13	22 " 50 =	7
12 " 15 =	40	14 " 46 =	11	18 " 34 =	12	22 " 52 =	6
12 " 16 =	38	15 " 16 =	30	18 " 36 =	11	22 " 56 =	6
12 " 17 =	35	15 " 18 =	27	18 " 38 =	11	22 " 60 =	5
12 " 18 =	34	15 " 20 =	24	18 " 40 =	10	24 " 24 =	13
12 " 20 =	30	15 " 22 =	22	18 " 42 =	10	24 " 26 =	22

GRADE, A Table Showing the Grade per Mile, as Indicated.—

An inclination of 1 ft. in 10 is 528 ft. per mile.							
"	"	1	"	15 =	352	"	"
"	"	1	"	20 =	264	"	"
"	"	1	"	25 =	211	"	"
An inclination of 1 ft. in 30 is 176 ft. per mile.							
"	"	1	"	35 =	151	"	"
"	"	1	"	40 =	132	"	"
"	"	1	"	50 =	106	"	"
"	"	1	"	100 =	53	"	"
"	"	1	"	125 =	42	"	"
"	"	1	"	150 =	35	"	"
"	"	1	"	200 =	26	"	"

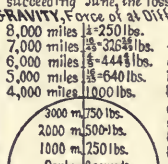
GRAIN, Shrinkage of.—From the time wheat is threshed, it will shrink two quarts to the bushel, or six per cent. in six months.

Corn shrinks much more than wheat. One hundred bushels as gathered from the field, will be reduced to eighty bushels after shrinkage, or twenty per cent. in six months.

Potatoes, taking into account those that rot, shrink still more. From October till the succeeding June, the loss is thirty-three per cent.

GRAVITY, Force of, at Different Elevations.—

8,000 miles $\frac{1}{4}$=250 lbs.
7,000 miles $\frac{15}{64}$=326.25 lbs.
6,000 miles $\frac{9}{25}$=444.8 lbs.
5,000 miles $\frac{25}{64}$=640 lbs.
4,000 miles 1000 lbs.



All objects weigh most at the surface of the earth. Ascending from the surface, their weight diminishes as the square of their distance from the center increases. Descending towards the center, their weight diminishes as their distance from the surface increases.

The operation of this law in the case of an object weighing 1,000 pounds at the earth's surface, is shown in the diagram.

Owing to the centrifugal force being excessive at the equator, and the polar diameter shorter than the equatorial, an object will weigh less at the equator than at the poles—1,000 pounds at the poles weighing only 995 pounds at the equator.

GROCERIES, Weight of.—See Cooks.

GUNS, RANGE, Etc., of.—The following are all breech-loader rifles, and convey a general idea of the power, etc., of guns. There are large numbers of naval guns whose range is ten miles or more.

Weight.	Length of Gun in Feet.	Caliber in Inches.	Weight of Charge in Pounds.	Weight of Projectile in Pounds.	Initial Velocity in Feet.	Perforation of Wrought Iron 1000 Yards.
19-ton (Ger.)	44.7	15.75	615	1,632	2,017	29 in.
110 " (Eng.)	41.8	16.25	900	1,800	2,020	30 "
108 " (")	46.8	17.00	882	2,000	2,037	29 "
100 " (")	30.7	17.00	772	2,000	1,835	28 "
100 " (It.)	39.7	17.00	772	2,000	1,835	28 "
71 " (Ger.)	31.4	15.75	485	1,715	1,703	24 "
71 " (Fr.)	34.8	14.50	548	1,455	2,034	24 "
63 " (Eng.)	34.7	13.50	625	1,250	2,050	28 "
52 " (Fr.)	32.7	13.20	362	926	1,968	23 "
48 " (Ger.)	32.0	12.00	357	1,003	1,857	24 "
21 " (Eng.)	23.9	9.20	230	320	2,179	19 "
20 " (")	25.5	9.05	197	403	1,900	21 "

HARDNESS, Degrees of, in Different Varieties of Wood.—The relative hardness of woods is calculated by the hickory which is the toughest. Estimating this at 100, others rank as follows:—Pignut, 96; white oak, 84; white ash, 77; dogwood, 75; scrub oak, 73; white hazel, 72; apple tree, 70; red oak, 69; white beech, 65; black walnut, 65; black birch, 62; yellow and black oak, 60; hard maple, 56; white elm, 58; red cedar, 56; cherry, 55; yellow pine, 54; chestnut, 52; poplar, 51; butternut, 43; white pine, 35.

WEIGHTS & MEASURES CONTINUED.

HARDNESS OF MINERALS. Scale of.—In the following list, any substance will scratch the one immediately following it:

Diamond, sapphire, topaz, quartz, feldspar, scapolite, apatite, fluor spar, calc spar, mica, gypsum, talc.

HAY, Number of Cubic Feet in a Ton.—

Timothy, a year in mow or stack, 500 cu.ft.
Timothy, from bottom of stack.. 400 "
Timothy, newly stacked..... 700 "
Timothy and clover, old stacked .... 600 "
Timothy and clover, new..... 800 "
Clover, stacked, old..... 700 "
Clover, new..... 900 "
Common meadow hay, old..... 800 "
Common meadow hay, new .....1000 "

HAIR, Length, etc., of.—The length to which hair may grow normally, especially in women, is very considerable, 74 inches having been exhibited in the "Hair Court" of the International Exhibition (1862).

Adam Kirpen, of Chicago, is reported to have sold a crop of whiskers in 1861, the length of which was 5 feet, and that subsequently they grew to the length of 12 feet.

Hair which is lightest in color is also lightest in weight. Light or blonde hair is generally the most luxuriant, and it has been calculated that the average number of hairs of this color on an average person's head is 140,000; while the number of brown hairs is 110,000, and black, 103,000.

HAY AND STRAW WEIGHT.—36 lbs. straw = 1 truss; 56 lbs. old hay = 1 truss; 60 lbs. new hay = 1 truss; 36 trusses = 1 load.

HEAD MEASUREMENTS.—Most of great men have had great heads. Webster's head measured over 24 inches; Clay's, over 23; Napoleon's, nearly 24; Hamilton's, 23¾. Burke's, Jefferson's, and Franklin's heads were very large. Small and average heads may astonish us by their brilliancy and learning, but fail in that commanding greatness which impresses and sways. (See Brain, weight of).

The general rule for the head-measurements of adults is as follows:—Smallest size compatible with fair talents, 20¾; moderate, 20¾ to 21¾; average, 21¾ to 22; full, 22 to 22¾; large, 22¾ to 23¾, very large, above 23¾.

HEAT.—See Temperatures.

HEAT CONDUCTORS.—Heat is communicated in three ways: viz., Conduction, Convection, and Radiation.

The relative conducting power of metals is as follows:—Silver, 100; copper, 74; gold, 53; brass, 24; tin, 15; iron, 12; lead, 9; platinum, 8; German silver, 6; bismuth, 2.

Of articles of clothing, linen, cotton, silk, wool, furs.

Liquids and gases are poor conductors, but good convectors of heat.

(See Radiation).

HEAT, SPECIFIC.—See Specific Heat.

HEAT VALUE OF FUELS.—Pounds of water evaporated by 1 lb. of fuel are as follows: Straw, 1.9; wood, 3.1; peat, 3.8; coke or charcoal, 6.4; coal, 7.9; petroleum, 14.6.

HEIGHT AND WEIGHT AT DIFFERENT AGES.—See Man and Woman (index).

HEIGHT AND WEIGHT, Relative.—The following are the average relative heights and weights of persons in health, as obtained by Dr. Hutchinson from over five thousand individuals:

5 ft. 1 in.	120 lbs.	5 ft. 7 in.	148 lbs.
5 " 2 "	125 "	5 " 8 "	155 "
5 " 3 "	133 "	5 " 9 "	162 "
5 " 4 "	139 "	5 " 10 "	169 "
5 " 5 "	142 "	5 " 11 "	174 "
5 " 6 "	143 "	6 " 00 "	178 "

HEIGHT BY THERMOMETER AND BAROMETER.—See Barometer, also Water.

HEMP ROPE, Weights it will Bear with Safety.—

Circumference.	Weight.	Circumference.	Weight.
1 inch.....	200 lbs.	3 inches...	1800 lbs.
1¼ "	312 "	3¼ "	2112 "
1½ "	450 "	3½ "	2450 "
1¾ "	612 "	3¾ "	2812 "
2 "	800 "	4 "	3200 "
2¼ "	1012 "	4½ "	4000 "
2½ "	1250 "	5 "	5000 "
2¾ "	1512 "	6 "	7200 "

HILLS IN AN ACRE OF GROUND.—

40 feet apart,	27 hills.	8 feet apart,	680 hills.
35 "	35 "	6 "	1,210 "
30 "	48 "	5 "	1,732 "
25 "	69 "	3½ "	3,556 "
20 "	108 "	3 "	4,840 "
15 "	193 "	2½ "	6,969 "
12 "	302 "	2 "	10,890 "
10 "	435 "	1 "	43,560 "

HOGS, Comparative Live and Dressed Weight.—Twenty pigs were well fed, and fattened with results as follows:

No.	Live.	Dressed.	No.	Live.	Dressed.
1	172 lbs.	143 lbs.	11	121 lbs.	102 lbs.
2	151 "	128 "	12	175 "	144 "
3	150 "	126 "	13	149 "	119 "
4	130 "	107 "	14	150 "	125 "
5	136 "	117 "	15	167 "	141 "
6	162 "	135 "	16	150 "	122 "
7	135 "	109 "	17	131 "	113 "
8	136 "	118 "	18	170 "	141 "
9	153 "	128 "	19	130 "	112 "
10	160 "	130 "	20	120 "	97 "

Total Live Wt., 2,942 — Dressed Wt., 2,452

HORSE POWER.—To estimate the work of any force, acting through a limited period of time, a unit of work has been adopted, called the horse-power. (See Foot-pound). A horse-power is the mechanical value of a force capable of raising thirty-three thousand pounds one foot in one minute. Its work is equal to thirty-three thousand foot-pounds in a minute.

HORSE, DRAWING CAPACITY.—On metal rails a horse can draw:—One and two-thirds times more than on asphalt pavements.

Three and one-third time more than on good Belgian blocks;

Five times more than on ordinary Belgian blocks;

Seven times more than on good cobble-stone;

Thirteen times more than on ordinary cobble-stone;

Twenty times more than on an ordinary earth road;

Forty times more than on sand.

A horse can drag, as compared with what he can carry on his back, in the following proportions:—On earth road, three times more; macadamized road, nine; plank twenty; on stone trackway, thirty-three; on a good railway, fifty-four times as much.

HOUSEHOLD MEASURES.—See Cooks.

HUMAN BODY, Composition of.—See Chemistry of the Body (index).

HUMAN LIFE, Average Length of.—The average length of human life is placed at thirty-three years. (See Life, 50 Years of).

HUMAN RESPIRATION.—At each inspiration of a man, about 17 cubic inches of air pass into the lungs, and this is repeated 20 times a minute, making a cubic foot in 3¼ minutes; 274 cubic feet in 24 hours. The capacity of the lungs is about 340 cubic inches.

HUMAN CIVILIZATION, Grades of.—**1.** Lowest Grade of Savagery. **2.** Middle Grade of Savagery. **3.** Upper Grade of Savagery. **4.** Lowest Grade of Barbarism. **5.** Middle Grade of Barbarism. **6.** Upper Grade of Barbarism. **7.** Civilization.

ICE, Strength of.—

Ice two inches thick will sustain a man.
Four inches thick, a man on horseback.
Five inches, an 80-pounder gun.
Six inches, a team with small load.
Eight inches, a team with heavy load.
Ten inches, an immeasurable multitude.

INCH OF RAIN.—An "Inch of Rain" means a gallon of water spread over a surface of nearly two square feet, or 3,630 cubic feet = 100 tons upon an acre.

INCUBATION. Time required for Hatching Eggs.—See Gestation.

INKS AND PAINTS, Mixtures of for Tints.—

Brown = red and black mixed together.
Buff = yellow, white, and a little Venetian red.
Chestnut = white and brown.
Chocolate = black and Venetian red.
Claret = red, umber, black.
Copper = red, yellow, black.
Cream = white, yellow, Venetian red.
Dove = white, vermillion, blue, yellow.
Drab = umber, white, Venetian red.
Fawn = white, yellow, red.
Flesh Color = white, lake, vermillion.
Freestone = red, black, yellow ochre, vermillion.
Gold = white, stone ochre, red.
Gray = white lead, black.
Gray (Silver) = indigo and lampblack.
Gray (Pearl) = white, blue, black.
Green Bronze = chrome green, black, yellow.
Green (Bright) = white and green.
Green (Dark) = light green and black.
Green (Pea) = white and green.
Green (Brilliant) = white and emerald green.
Lead Color = white and lampblack.
Lemon = white, chrome yellow.
Limestone = white, yellow ochre, black, red.
Olive = yellow, blue, black, white.
Orange = yellow and red.
Peach = white and vermillion.
Pearl = white, black, blue.
Pink = white and carmine
Purple = violet, with more red and white.
Rose = white and lake.
Sandstone = white, yellow ochre, black, red.
Snuff = yellow, Vandyke brown.
Straw Color = white and yellow.
Violet = red, blue, white.
White (French) = purple and white.

INSECTS. Strength of.—A beetle recently exhibited at a scientific exhibition, gave rise to the following as to its strength:—Weight of beetle, two grains; weight moved by it, 3½ ounces = 1320 times the weight of the beetle! Were man's strength equal in proportion, he could move nearly 100 tons.

WEIGHTS & MEASURES CONTINUED.

INSPIRATION, Frequency of.—At birth the inspirations are from 70 to 23; from the ages of from 15 to 20 years, from 24 to 16; from the ages of from 30 to 50, 23 to 11.

INTOXICATION, Stages of.—Several stages may be noted in the progress of intoxication. First Stage. This is characterized by liveliness and excitability, the circulation of the blood is more free, the bodily functions are performed with greater freedom, the mental faculties are more active, and there is a feeling of confidence and strength. Second Stage. In this stage all the peculiarties of character, the weaknesses and failings of temperament, which are concealed in sobriety, manifest themselves. Third Stage. Consciousness becomes still more weakened, bodily balance is lost, and the brain becomes dizzy. Fourth or Last Stage. The victim sinks into a heavy slumber, appetite for food fails, the cheeks become hollow or bloated, the vigor of the frame is so lessened as to culminate in delirium tremens.

IRON, Different Values of.—A bar of iron worth $5, worked into horseshoes, advances in value to $10; made into needles, is worth $350; made into penknife-blades, is worth $3285; made into balance-springs of watches, is worth $250,000.

IRON, Heat Colors of.—(Fahrenheit degrees).

502° to 680°—Violet, Purple, and dull blue.
932°—Covered with light coating of oxide.
977°—Becomes Nascent Red.
1292°—Somber Red.
1472°—Nascent Cherry.
1657°—Cherry.
1832°—Bright Cherry.
2012°—Dull Orange.
2192°—Bright Orange.
2372°—White.
2552°—Brilliant White—welding heat.
2732° to 2912°—Dazzling White.

IRON AND STEEL, Breaking and Crushing Strains.—

	TONS PER SQ. IN. OF SECTION
Breaking strain of wrought iron	23
Crushing " " "	17
Breaking strain of cast iron	7½
Crushing " " "	50
Breaking strain of steel bars	50
Crushing " " "	166

IRON, Weight of.—See Metals.

IRON AND LEAD MEASURE.—14 Pounds = 1 Stone; 21½ Stone = 1 Pig; 8 Pigs = 1 Fother.

IRON RAILS, Durability of.—The average life of an iron rail is 15,000,000 of tons, or equal to 100,000 trains of 150 tons each. The average time in years is about 5; but this depends upon the amount of traffic over the road. Steel rails are only half worn out with 95,600,000 tons of traffic, making the time in years upward of 18.

JEWISH WEIGHTS, Reduced to English Troy Weight.—

The Gerah (1/20 Shekel)	=	0 lbs. 0 oz.	0 pwt. 12 gr.
The Bekah (1/2 Shekel)	=	0 " 0 "	5 "	0 "
The Shekel	=	0 " 0 "	10 "	0 "
The Maneh (60 Shekels)	=	2 " 6 "	0 "	0 "
The Talent (3000 ")	=	125 " 0 "	0 "	0 "

KNOTS AND STATUTE MILES.—The circumference of the earth is divided into 360 degrees, each degree into 60 knots or nautical miles, consequently the circumference of the earth—viz. 131,385,456 feet—divided by (360 × 60 = 21,600 gives the length of a knot, viz. 6,082.66 feet, which is generally considered the standard, except by the Admiralty. The Admiralty knot is 6,080 feet; the statute mile being = 5,280 feet.

One knot equals 1.1515 miles, consequently to find the equivalents of knots in miles, multiply the number of Knots by 1.1515.

LABOR, Value of, to the Commonwealth.—Dr. Farr estimates the value of an agricultural laborer to the commonwealth as follows:

AGE.	VALUE	AGE.	VALUE	AGE.	VALUE.
5	$ 280	30	$ 1205	55	$ 690
10	585	35	1140	60	485
15	960	40	1060	65	230
20	1170	45	965	70	0
25	1230	50	840	75	−125

The minus sign shows a loss to the commonwealth. Intellectual workers are often of much value after the age of 70.

LAND MEASURE.—A Township is 36 sections, each a mile square, and containing 640 acres. A quarter section is one half mile square and contains 160 acres. An eighth section is half a mile long north and south, a quarter mile wide, and contains 80 acres. A sixteenth section is a quarter mile square and contains 40 acres.

The sections of a township are numbered from 1 to 36, commencing at the northeast corner, thus:

6	5	4	3	2	N.W. N.E. S.W. S.E.
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

The sections are all divided into quarters, which are named by the cardinal points, as in section 1. The quarters are divided in the same way. The description of a forty-acre farm would read thus: The south half of the west half of the southwest quarter of section 1, township 24, north of range 7 west, or as the case might be; and, owing to the meridians converging toward the north, and diverging toward the south, will sometimes fall short, and sometimes overrun the number of acres it is supposed to contain.

A lot with any of these dimensions = an acre:

WIDTH.	LENGTH.	WIDTH	LENGTH.
5 yards by	968 yards.	10 yards by	483 yards.
20 "	242 "	50 "	97 "
80 "	60½ "	47 "	103 "
16 "	303 "	30 "	161 "
59 "	82 "	40 "	121 "
70 "	69 "	55 "	88 "

The side of a square to contain

1 acre =	208.71 feet, or	12.65 rods, or	64 paces.
¼ " =	147.58 "	8.94 "	45 "
⅓ " =	120.50 "	7.30 "	37 "
½ " =	104.36 "	6.32 "	32 "
⅔ " =	73.79 "	4.47 "	22½ "

LAND OR SQUARE MEASURE.—144 sq. in. = 1 sq. ft.; 9 sq. ft. = 1 sq. yd.; 30¼ sq. yds. = 1 sq. rod; 40 sq. rds. = 1 rood; 4 roods = 1 acre.

Also for Surveyors' measure, 7.92 inches = 1 link; 25 links = 1 rod; 4 rods = 1 chain; 10 square chains, or 160 square rods = 1 acre; 640 acres = 1 square mile.

LATENT HEAT.—A pound of water at 212° mixed with a pound of water at 32° gives two pounds at the mean temperature of 122°; but a pound of water at 212° mixed with a pound of ice at 32°, gives two pounds of water having a temperature of only 51°. In this case the water has lost 161°, while the ice has gained only 19°, so that 142° have disappeared in changing the ice to water. This 142°, which is not sensible to the thermometer, is called latent heat.

The latent heat of water is of the greatest value in nature, and were it not for this provision, the inhabitants of northern valleys would be exposed to terrific inundations at every approach of spring.

Every solid has its own latent heat, which is called the heat of fusion, or the latent heat of liquids. In the subjoined table the second column of figures shows the number of pounds of water that would be raised one degree by the solidifying of one pound of the substance named. The first column is the heat of fusion.

	In °Fahr.	Water = 1.
Water	142.65	1.000
Zinc	50.63	.355
Tin	25.65	.179
Sulphur	16.85	.118
Lead	9.65	.067
Mercury	5.11	.035

LEVEL, TABLE SHOWING TRUE AND APPARENT.—A true level coincides with the sphericity of the earth, while an apparent level consists of a continuation of the level plain drawn through the point at which the observation is made. (See also Distance One can See).

DIST. YDS.	DIFF. OF LEVEL—INCHES.	DIST. YDS.	DIFF. OF LEVEL—INCHES.	DIST. YDS.	DIFF. OF LEVEL—INCHES.
100	0.026	900	2.081	1700	7.425
200	0.103	1000	2.570	1800	8.324
300	0.231	1100	3.110	¼ mile	0.500
400	0.411	1200	3.701	½ "	2.000
500	0.643	1300	4.344	¾ "	4.500
600	0.925	1400	5.038	1 "	8.000
700	1.200	1500	5.784	2 "	32.000
800	1.645	1600	6.580	3 "	72.000

LENGTH OF DAY AND NIGHT. (See also Sunset and Sunrise Table—index).—The inequality of day and night increases slowly in the tropical regions, but more and more rapidly toward the polar circles. Beyond these circles the Sun, in the hemisphere in which it is vertical, makes the entire circuit of the heavens, without sinking below the horizon, for a period varying from twenty-four hours to six months, while in the opposite hemisphere there is a corresponding period of continuous night.

The Table on the next page gives the length of the longest day and shortest night, in different latitudes, with the difference in length.

LENGTH OF DAY AND NIGHT. Table.—

LATITUDE.	LONGEST DAY.	SHORTEST NIGHT.	DIFFERENCE.
Equator..	12.0 hours.	12.0 hours.	00.0 hours.
10°	12.7 "	11.3 "	1.4 "
20°	13.3 "	10.7 "	2.6 "
Tropics...	13.5° "	10.5 "	3.0 "
30°	14.0 "	10.0 "	4.0 "
35°	14.5 "	9.5 "	5.0 "
40°	15.0 "	9.0 "	6.0 "
45°	15.6 "	8.4 "	7.2 "
50°	16.3 "	7.7 "	8.6 "
55°	17.3 "	6.7 "	10.6 "
60°	18.7 "	5.3 "	13.4 "
Polar Circles	24.0 "	0.0 "	24.0 "
67½°	1 month.	. . . . .	. . . . .
69½°	2 months.	. . . . .	. . . . .
73.3°	3 "	. . . . .	. . . . .
78.3°	4 "	. . . . .	. . . . .
84°	5 "	. . . . .	. . . . .
Poles	6 "	. . . . .	. . . . .

LIFE, AVERAGE LENGTH IN DIFFERENT OCCUPATIONS.— The following table exhibits the average length of life as ascertained in the State of Massachusetts:

OCCUPATION.	YEARS.	OCCUPATION.	YEARS.	OCCUPATION.	YEARS.
Unemployed men	68	Blacksmiths	51	Bakers	43
Judges	65	Merchants	51	Painters	43
Farmers	64	Calico Printers	51	Shoemakers	43
Bank Officers	64	Physicians	51	Mechanics	43
Coopers	58	Butchers	50	Editors	40
Public Officers	57	Carpenters	49	Musicians	39
Clergymen	56	Masons	48	Printers	38
Shipwrights	55	Traders	46	Machinists	36
Hatters	54	Tailors	44	Teachers	34
Lawyers	54	Jewelers	44	Clerks	34
Rope Makers	54	Manufacturers	43	Operatives	32

LIFE, FIFTY YEARS OF.— According to a French statistician, taking the mean of many accounts, a man of 50 years of age has slept 6,000 days; worked 6,500 days; walked 800 days; was eating 1,500 days; and was sick 500 days. He has eaten 17,000 pounds of bread; 16,000 pounds of meat; 4,600 pounds of vegetables, eggs, and fish; and drunk in all, water, coffee, wine, etc., 7,000 gallons of liquids.

LIFE, PRESSURE BORNE BY ANIMALS AT GREAT DEPTHS.— At 16 fathoms a living creature would have to sustain about sixty pounds to the square inch; at 60 fathoms, as much as 180 pounds per square inch; at 100 fathoms, 285 pounds; at 700 fathoms, 1830 pounds; at 1000 fathoms, the pressure per square inch considerably exceeds a ton.

Whales are known to descend perpendicularly 4,800 feet, and consequently a large whale would have to sustain the pressure of about 212,000 tons, or about 140 tons on every square foot of its body.

LIGHT, RELATIVE INTENSITY OF.— The direct light of the sun has been estimated to be equal to that of 5,570 wax candles of moderate size supposed to be placed at the distance of one foot from the object. The light of the moon is only equal to one candle at a distance of 12 feet. The sun's light is more than 300,000 times greater than that of the moon. The sun's light, in comparison with that of all the stars taken collectively, is many million times greater, and that of Sirius alone, twenty thousand millions greater.

LIQUID MEASURE.— 4 gills = 1 pint; 2 pints = 1 quart; 4 quarts = 1 gallon; 31½ gallons = 1 barrel; 2 barrels = 1 hogshead. The gallon contains 231 cubic inches.

LIQUIDS, EXPANSION OF.— See Expansion and Contraction.

LIQUIDS, WEIGHT OF PER GALLON.—

Water, distilled ..	10.0 lbs.	Nitric acid	12.7 lbs.
Water, salt	10.3 "	Muriatic acid ..	12.0 "
Vinegar	10.1 "	Linseed oil	9.4 "
Alcohol (commerce).	8.2 "	Whale oil	9.2 "
Alcohol (proof spirit)	9.2 "	Oil of turpentine.	8.7 "
Naphtha	8.5 "	Petroleum	8.8 "
Sulphuric acid .	18.5 "	Tar	10.1 "

LIQUIDS, PRESSURE OF.— See Fluids.

LIQUOR, AMOUNT THAT CAN BE MADE FROM a Bushel of Various Grains.— Corn affords 40 pounds of spirits of the specific gravity of 0.9427, containing 45 per cent. of absolute alcohol for each 100 pounds of grain. Wheat, 40 to 45 per cent. of spirits; barley, 40; oats, 36; rye, 36 to 42; buckwheat, 40.

From the above figures it is found that each bushel of corn and rye yields 1.96 gallons of proof spirits; wheat, 2.1 gallons; barley, 1.68 gallons; oats, 1.12 gallons; buckwheat, 1.82 gals.

LOCOMOTIVE, POWER OF.— A standard locomotive, 32½ tons weight, cylinders 16 inches diameter, 24-inch stroke, 60-inch drivers, will haul over a level grade and straight line, 1,000 tons, or about 50 loaded cars. The same locomotive would work as follows:

20-foot grade	460 tons or 23	loaded cars.
40-foot grade	290 " 14	"
60-foot grade	205 " 10	"
80-foot grade	150 " 8	"
100-foot grade	120 " 6	"

LONG OR LINEAR MEASURE.— 12 inches = 1 foot; 3 feet = 1 yard; 5½ yards, or 16½ feet = 1 rod; 40 rods = 1 furlong; 8 furlongs = 1 mile; 3 miles = 1 league.

Also, 4 inches = 1 hand; 3 inches = 1 palm; 9 inches = 1 span; 18 inches = 1 cubit; 21.8 inches = 1 sacred cubit; 36 inches, or 3 feet, = 1 pace; 28 inches, or 2½ feet = 1 military pace; 33.38676 inches = 1 vara.

Also, 48 hair's breadths = 1 inch; 1 digit = ¾ inch; 4 barley-corns—breadthways = ⅓ of an inch, or 3 barley-corns—lengthways = 1 inch; 12 lines = 1 inch. (See Cloth Measure).

LONGITUDE, LENGTH OF A DEGREE AT Each Degree of Latitude.—

LAT.	MILES.	LAT.	MILES.	LAT.	MILES.	LAT.	MILES.	LAT.	MILES.
1°	59.99	19°	56.73	37°	47.92	55°	34.41	73°	17.2
2°	59.96	20°	56.3	38°	47.28	56°	33.55	74°	16.54
3°	59.92	21°	56.01	39°	46.63	57°	32.68	75°	15.53
4°	59.85	22°	55.63	40°	45.96	58°	31.80	76°	14.52
5°	59.77	23°	55.23	41°	45.28	59°	30.90	77°	13.50
6°	59.67	24°	54.81	42°	44.5	60°	30.00	78°	12.47
7°	59.55	25°	54.38	43°	43.88	61°	29.09	79°	11.45
8°	59.42	26°	53.93	44°	43.16	62°	28.17	80°	10.42
9°	59.26	27°	53.46	45°	42.43	63°	27.24	81°	9.39
10°	59.09	28°	52.98	46°	41.68	64°	26.30	82°	8.35
11°	58.90	29°	52.48	47°	40.92	65°	25.36	83°	7.31
12°	58.69	30°	51.96	48°	40.15	66°	24.40	84°	6.27
13°	58.46	31°	51.43	49°	39.36	67°	23.44	85°	5.23
14°	58.22	32°	50.88	50°	38.57	68°	21.48	86°	4.19
15°	57.96	33°	50.32	51°	37.76	69°	21.50	87°	3.14
16°	57.68	34°	49.74	52°	36.94	70°	20.52	88°	2.09
17°	57.38	35°	49.15	53°	36.11	71°	19.53	89°	1.05
18°	57.06	36°	48.54	54°	35.27	72°	18.54	90°	0.00

LONGITUDE AND TIME.— To reduce longitude to time, divide the degrees, minutes, and seconds by 15; thus, 122° 24′ 53″ ÷ 15 = 8 hrs. 9 min. 39.5 sec.

To find the difference of time between two places, divide the difference in longitude by 15; thus, the longitude of San Francisco is 122° 24′ 53″; that of New York is 74° 00′ 03″; the difference in longitude between the two places is 48° 24′ 50″, which, divided by 15, gives 3 hours, 13 minutes, 39½ seconds, for the difference in time.

To determine longitude from time, multiply the time in hours, minutes, and seconds, by 15; thus, 1 hr. 51 min. 45 sec. X 15 = 27° 56′ 15″.

LOST TIME.— 313 working days in a year, 10 hours per day;

5 minutes lost in each day = 2 days, 6 hrs. 5 m. per yr.

10	"	"	= 5	" 2	" 10 "
20	"	"	= 13	" 0	" 20 "
60	"	"	= 39	" 1	" 0 "

LUMBER MEASURE.— See Lumber Measurement—Index.

LUNGS, COMPARATIVE ENERGIES OF.—

If the air inspired in a lying position be taken as one, then is the air inspired in a sitting position 1.18; standing, 1.33; walking 1 mile per hour, 1.9; walking 3 miles an hour, 3.22; walking 6 miles per hour, 7.0; swimming, 4.33; riding, 4.05.—Dr. E. Smith.

MARINERS' MEASURE.— 6 feet = 1 fathom; 120 fathoms = 1 cable-length; 7½ cable-lengths = 1 mile.

1 statute mile = 5,280 feet; 1 nautical mile = 6,085.889568 feet; 1 equatorial degree (See Longitude, Length of a degree, etc.), = 60 nautical miles. (See Nautical Measure).

The term knot refers to a division of the log line which is used to ascertain a vessel's motion. (See Knots and Statute Miles).

MASONS, MEASUREMENTS FOR.— One and one-eighth barrels of lime and ⅔ yard sand will lay 1,000 bricks.

One man will lay from 1,800 to 2,000 brick per day.

1¼ barrels lime, and 1 yard of sand, will lay 100 feet of stone.

One man can lay 150 feet of stone per day.

1¼ barrels cement, and ⅔ yard sand, will lay 100 feet rubble stone.

MATERIALS, WEIGHT OF IN POUNDS Per Cubic Foot. (See also Cubic Foot Weights).

MATERIAL.	LBS.	MATERIAL.	LBS.	MATERIAL.	LBS.
Alum ..	107.1	Lime, hydraulic	171.1	Slate, Av.	175.0
Asbestos	192.8	Limestone, Av.	109.3	Soil, ordinary	124.0
Beech ..	53.2	Mercury, solid	877.0	Steel ..	480.7
Bismuth.	613.9	Mud, Av. ..	102.0	Tile ..	114.4
Brass Wire.	534.0	Nickel ..	487.9	Tin ..	455.7
Bronze ..	513.4	Olive Oil ..	57.2	Type Metal	653.1
Coal, Cannel	77.0	Peat	37 to 83.0	Vinegar.	67.5
Cobalt ..	488.2	Platinum.	1218.9	Water, fresh	62.5
Firebrick.	137.7	Plumbago.	131.0	Water, sea	64.3
Grindstone	133.9	Pot Wine .	62.3	Water, dead Sea	77.5
Gun Metal	543.7	Red Lead ..	558.7	Whale Oil ..	57.7
Lard.....	58.2	Rock Crystal.	170.9	Zinc ...	439.0

MEAN REFRACTIONS.— The subjoined table of Mean Refractions, with the argument 'apparent altitude' gives the correction to be applied to observed altitudes in order to free them from the effect of atmospheric refraction. Bodies appearing more elevated above the horizon than they are, the tabular quantities are taken from observed altitudes.

APPAR. ALT.	MEAN REFR.	APPAR. ALT.	MEAN REFR.	APPAR. ALT.	MEAN REFR.	APPAR. ALT.	MEAN REFR.
0° 0′	34′ 55″	3° 30′	12′ 58″	10°	5′ 16″	22°	2′ 21″
0° 10′	32′ 49″	4° 0′	11′ 39″	11°	4′ 49″	23°	2′ 15″
0° 20′	30′ 52″	4° 30′	10′ 43″	12°	4′ 25″	24°	2′ 9″
0° 30′	29′ 4″	5° 0′	9′ 47″	13°	4′ 5″	25°	2′ 3″
0° 40′	27′ 23″	5° 30′	9′ 2″	14°	3′ 47″	26°	1′ 58″
0° 50′	25′ 50″	6° 0′	8′ 23″	15°	3′ 32″	27°	1′ 53″
1° 0′	24′ 25″	6° 30′	7′ 50″	16°	3′ 19″	28°	1′ 48″
1° 20′	21′ 58″	7° 0′	7′ 20″	17°	3′ 7″	29°	1′ 44″
1° 40′	19′ 52″	7° 30′	6′ 53″	18°	2′ 56″	30°	1′ 40″
2° 0′	18′ 0″	8° 0′	6′ 30″	19°	2′ 46″	32°	1′ 32″
2° 30′	16′ 8″	8° 30′	6′ 8″	20°	2′ 37″	34°	1′ 25″
3° 0′	14′ 15″	9° 0′	5′ 49″	21°	2′ 29″	36°	1′ 19″

38°	1′ 14″	60°	0′ 59″	82°	0′ 16″
40°	1′ 9″	62°	0′ 58″	84°	0′ 11″
42°	1′ 5″	64°	0′ 57″	86°	0′ 7″
44°	1′ 0″	66°	0′ 56″	88°	0′ 3″
46°	0′ 58″	68°	0′ 55″	90°	0′ 0″
48°	0′ 55″	70°	0′ 54″		
50°	0′ 53″	72°	0′ 53″		
52°	0′ 52″	74°	0′ 52″		
54°	0′ 51″	76°	0′ 51″		
56°	0′ 50″	78°	0′ 50″		
58°	0′ 49″	80°	0′ 49″		

WEIGHTS & MEASURES.

MEDICINES, WITH PROPER DOSES.—For adults, give the full dose; from 14 to 20 years of age, ⅔ of full dose; 7 to 14 years, ½ dose; 4 to 7 years, ⅓ dose; 3 years, ¼ dose; 2 years, ⅕ dose; 1 year, ⅛ dose; for babes, under 1 year, the dose should go down by months at the same rate as by years, for those over a year.

Medicines.	Doses.
Arsenic, Fowler's Solution of	2 to 10 drops.
Aconite, Extract of	⅛ to ½ grain.
Aconite, Tincture of	1 to 5 drops.
Aloes, Purified	1 to 5 grains.
Aloes, Pills of	1 to 4 pills.
Asafœtida, Mixture of	½ to 2 tablespoonfuls.
Asafœtida, Tincture of	½ to 2 teaspoonfuls.
Belladonna, Extract of	½ to 1 grain.
Belladonna, Fluid Extract of	1 to 5 drops.
Belladonna, Tincture of	5 to 30 drops.
Bromide of Ammonia	5 to 20 grains.
Bromide of Potassium	5 to 20 grains.
Bromide of Sodium	5 to 20 grains.
Calibar Bean, Extract of	½ to 1 grain.
Calomel	⅛ to ½ grain.
Camphor, Spirits of	5 to 15 drops.
Camphor Water	1 to 4 teaspoonfuls.
Capsicum, Tincture of	10 to 20 drops.
Castor Oil	½ to 2 tablespoonfuls.
Chloral, Hydrate of	5 to 30 grains.
Cinchona, Sulphate of	5 to 30 grains.
Cinchona, Compound Tincture of	1 to 4 teaspoonfuls.
Cod Liver Oil	½ to 1 tablespoonful.
Copper, Sulphate of	⅛ to ½ grain.
Corrosive Sublimate	1/20 to 1/10 grain.
Cream of Tartar	5 to 60 grains.
Croton Oil	1 to 2 drops.
Digitalis, Extract of	½ to 2 grains.
Digitalis, Tincture of	5 to 60 drops.
Dover's Powder	5 to 10 grains.
Epsom Salts	½ to 2 tablespoonfuls.
Gentian, Extract of	1 to 5 grains.
Hydrochloric Acid, dilute	1 to 5 drops.
Iodine, Compound Tincture of	2 to 5 drops.
Iodide of Potassium	5 to 30 grains.
Ipicacuanha, Fluid Extract of	2 to 30 drops.
Ipicacuanha, Syrup of	1 to 4 teaspoonfuls.
Iron, Pyrophosphate of	2 to 5 grains.
Iron, Tincture of the Chloride of	2 to 30 drops.
Lactic Acid	15 to 30 drops.
Laudanum	15 to 40 drops.
Lead, Sugar of	½ to 5 grains.
May Apple, Extract of	3 to 8 grains.
Muriatic Acid, dilute	5 to 10 drops.
Morphine	⅛ to ⅓ grains.
Magnesia, Sulphate of	½ to 2 tablespoonfuls.
Mustard, Ground	1 to 2 teaspoonfuls.
Nitre, Sweet Spirits of	½ to 1 teaspoonful.
Nux Vomica, Tincture of	10 to 25 drops.
Opium, Extract of	½ to 2 grains.
Opium, Tincture of	15 to 40 drops.
Paregoric	½ to 2 tablespoonfuls.
Potassium, Bicarbonate of	5 to 20 grains.
Potassium, Bromide of	5 to 20 grains.
Potassium; Chlorate of	5 to 20 grains.
Potassium, Iodide of	5 to 30 grains.
Pepsin	5 to 10 grains.
Quinine	2 to 10 grains.
Senna, Fluid Extract of	1 tablespoonful.
Soda, Bicarbonate of	5 to 20 grains.
Squill, Syrup of	½ to 1 teaspoonful.
Strychnia, Sulphate of	1/20 to ½ of a grain.
Turpentine, Spirits or Oil of	5 to 10 drops.
Zinc, Oxide of	½ to 5 grains.

MELODY OF SINGING BIRDS, RANK OF.—The rank in melody of singing birds is as follows: The nightingale, linnet, titlark, skylark, and woodlark. The mockingbird excels in imitative powers, and in variety of tones, the robin and goldfinch.

MEN AND ANIMALS, WEIGHT OF.—The average weight of 20,000 men and women, weighed at Boston, Mass., was—men, 141½ lbs.; women, 124½ lbs.

A crowd of people closely packed exerts a pressure of about 85 lbs. per square foot.

The average weight of a man is 140½ lbs.

The average weight of a strong cart horse is 14 cwt., and of a cavalry horse, 11 cwt.; a cow, 6½ to 8 cwt.; an ox, 7 to 9 cwt.; a pig, 1 to 2 cwt.; and a sheep, ¾ to 1¼ cwt.

METALS, ALLOYS OF.—(See also Compositions, Proportions of, and Coins, Fineness of.)

Bath Metal is composed of copper and tin.
Britannia Ware=tin, antimony, copper, bismuth.
Bronze=tin and copper.
Cannon Metal=tin and copper.
Dutch Gold=copper and zinc.
Mosaic Gold=copper and zinc.
Old standard Gold=gold, copper, silver.
Pewter=tin and lead.
Sheet Metal=lead and a little arsenic.
Solder=tin and lead.
Standard Gold=gold and copper.
Standard Silver=silver and copper.
Type Metal=lead and antimony.
White Copper=copper and arsenic.

METALS, RELATIVE WEIGHTS OF.—If Bar Iron be taken as 100, then Cast Iron is 95; Steel, 102; Copper, 116; Brass, 109; Lead, 148.

If Cast Iron be 100, then Bar Iron is 107; Steel, 108; Brass, 116; Copper, 121; Lead, 156.

If Brass be 100, then Bar Iron is 92; Cast Iron 86; Steel, 93; Copper, 105; Lead, 135.

If Copper be 100, then Bar Iron is 87; Cast Iron, 82; Steel, 88; Brass, 93; Lead, 128.

If Lead be 100, then Bar Iron is 68; Cast Iron, 64; Steel, 69; Brass 74; Copper, 78.

METALS, RELATIVE POWERS OF TO CONDUCT ELECTRICITY.—(See Heat Conductors). Silver is the best conductor of electricity, then copper, gold, zinc, iron, tin, lead, antimony, and bismuth, in the order as given.

METALS, RELATIVE VALUES.—While the value of any one metal cannot be regarded as constant, it has an average value; and many of the more rare metals do not exist in large quantities, yet, in order to compare the values, they are considered as existing in at least one pound (Avoirdupois) quantities. In the subjoined list the prices are the average per pound.

METAL.	PRICE.	METAL.	PRICE.	METAL.	PRICE.
Gallium	$48,000.00	Niobine	$2,300.00	Silver	$16.00
Vanadium	10,000.00	Barium	1,800.00	Cobalt	16.00
Rubidium	9,070.00	Palladium	1,400.00	Sodium	8.00
Zirconium	7,200.00	Osmium	1,300.00	Nickel	5.00
Lithium	7,000.00	Iridium	1,090.00	Cadmium	4.00
Glucium	5,400.00	Uranium	900.00	Aluminium	3.00
Calcium	4,500.00	Titanium	688.00	Bismuth	2.50
Strontium	4,200.00	Chromium	500.00	Mercury	.35
Terbium	4,080.00	Gold	330.00	Arsenic	.50
Vitrium	4,080.00	Molybdenum	213.00	Tin	.25
Erbium	3,400.00	Thallium	225.00	Copper	.25
Cerium	3,400.00	Platinum	150.00	Antimony	.16
Didymium	3,200.00	Manganese	130.00	Zinc	.11
Indium	3,200.00	Tungstem	115.00	Lead	.08
Ruthenium	2,400.00	Magnesium	64.00	Iron	.01½
Rhodium	2,300.00	Potassium	64.00		

VALUE OF PRECIOUS GEMS PER CARAT.

Diamond	$50 to $150	Emerald	$50 to $200
Sapphire	100 " 150	Opal	15 " 40
Ruby, Oriental	100	Chrysoberyl	15 " 50

METRIC SYSTEM.—The metric system is so called as being based on the measurement of the earth. The metre, its fundamental measure, is the ten-millionth part of a meridian line drawn from the pole to the equator, and is 39.37079 English inches. The 100th of a metre is the Centimetre. The Gramme is a cubic centimetre of distilled water at the temperature of maximum density (39.2° F.), being 15.438 English grains, or .0022054 lb. avoirdupois. All the multiples and subdivisions of the current coins, as well as of every measure and weight, are decimal. This system was first adopted by France in 1799.

METRIC WEIGHTS AND MEASURES.—

LINEAR MEASURE.

Mètre	=	3.2808992 feet.
Décamètre (10 metres)	=	32.808992 feet.
Hectomètre (100 metres)	=	328.08992 feet.
Kilometre (1,000 metres)	=	1093.633 yards.
Myriametre (10,000 metres)	=	6.2138 miles.
Decimètre (.1 metre)	=	3.937079 inches.
Centimètre (.01 metre)	=	0.39371 inch.
Millimètre (.001 metre)	=	0.03937 inch.

SUPERFICIAL MEASURE.

Are (100 sq. metres)	=	119.60113 sq. yds.
Hectare (10,000 sq. metres)	=	2.471143 acres.
Centiare (1 sq. metre)	=	1.196033 sq. yd.

MEASURE OF CAPACITY.

Litre (1 cubic decimetre)	=	1.760773 pints.
Décalitre (10 litres)	=	2.2009668 gals.
Hectolitre (100 litres)	=	22.009668 gals.
Kilolitre (1,000 litres)	=	220.09668 gals.
Décilitre (.1 litre)	=	0.17607 pint.
Centilitre (.01 litre)	=	0.017607 pint.

SOLID MEASURE.

Stere (1 cubic metre)	=	1.31 cubic yard.
Décastère (10 steres)	=	13 cu. yds., 2 feet, 21 inches.
Décistere (.1 stere)	=	3 cu. ft., 91⅞ cubic inches.

WEIGHTS.

Gramme	=	15.432349 grs. troy.
Décagramme (10 grams)	=	5.6438 drm. avoir.
Hectogramme (100 grammes)	=	3.527 oz. avoir.
Kilogramme (1,000 gr.)	=	2.204621 lb. avoir.
Quintal métrique (100 kilos)	=	220.4621 lb. avoir.
Millier, or tonneau (1000 kilos)	=	2204.621 lb. avoir.
Décigrammes (.1 gramme)	=	1.5432 grain.
Centigrammes (.01 gramme)	=	0.15432 grain.
Milligrammes (.001 gramme)	=	0.015432 grain.

METRIC WEIGHTS AND MEASURES, To Convert Into English Weights and Measures.

To convert grammes into avoirdupois ounces, multiply by .0352; kilogrammes into avoirdupois lbs., multiply by 2.2046; litres into gallons, multiply by .2202; litres into pints, multiply by 1.762; millimetres into inches, multiply by 25.4; metres into yards, multiply by 10 and divide by 64.

METRIC WEIGHTS AND MEASURES, English Equivalents of.—An English mile = 5280 feet; an admiralty knot = 6080 feet, a kilometer = 3281 feet. An English mile is, therefore = 0.87 knot = 1.609 kilometre. Or 1 knot = 1.15 mile = 1.85 kilometre. Or 1 kilometre = 0.54 knot = 0.621 English mile. 1 metre = 39.37 inches; 1 square mile = 259 hectares; 1 square metre = 1550 square inches = 10.76 square feet; 10 square feet = 0.929 square metres; 1 cubic metre = 1.308 cubic yards = 35.3 cubic feet; 1 cubic yard = 765 litres; 1 cubic foot = 28.3 litres; 1 litre = 61 cubic inches; 10 cubic inches = 0.1639 litres; 1 Hectolitre = 2.84 bushels = 35.2 litres; 1 tonneau or millier = .984 English ton (of 2240 lbs.); 1 English ton = 1.016 tonneau or millier.

MILE, COMPARISON OF.—English statute mile is 1760 yards; Roman, 1628; Tuscan, 1808; German short, 6859=long, 10126; Irish, 2240; Danish, 8224; Swiss, 9153; Swedish, 11,700.

MILK, ANALYSIS OF.–

	Water.	Fat.	Caseine.	Sugar	Total
Woman	89.3	2.5	3.4	4.8	100
Cow..	86.0	4.0	7.2	2.8	100
Ass....	90.9	1.1	1.9	6.1	100
Goat..	86.8	3.3	4.0	5.9	100
Ewe ...	85.6	4.2	4.5	5.7	100

MILK, CREAM, BUTTER, ETC.— The time required for the full amount of cream to rise to the surface of new milk at different temperatures may be seen from the following table.

10 to 12 hours with temperature of air				77° F.
18 to 20	"	"	"	68° "
24	"	"	"	55° "
36	"	"	"	50° "

1 gallon of milk weighs 10 lbs. 4 ozs., being heavier than water in the proportion of 103 to 100. The best temperature at which to churn cream is from 55° to 60° Fahr.; for milk 65° Fahr. Milk will produce scarcely any cream, even in the space of a month, if it is kept at 33° to 38°. Milk turns sour by the fermentation of the sugar, and its transformation into lactic acid, thus causing the milk to curdle; vinegar or rennet will produce the same effect. Good cream will produce about ⅛ of its weight of butter; cheese made from good milk contains nearly 33 per cent. of water; that from skim-milk 60 per cent.

MISCELLANEOUS WEIGHTS AND MEASURES.– See at close of this list.

MINERALS, RELATIVE HARDNESS OF.– See Hardness of Minerals.

MIXED RACES, NAMES OF OFFSPRING.

FATHER.	MOTHER.	MALE-OFFSPRING.	FEM.
White	Negro	Mulatto	Mulatta
White	Mulatta	Quarteron	Quarteron.
White	Quarteron.	Quintero	Quintera
White	Quintera	White	White
White	Indian	Mestizo	Mestiza
Negro	Indian	Zambo	Zamba
White	Chinese	Chino-blanco	
Negro	Chinese	Zambo-chino	
Mulatto	Chinese	Chino.	

MONUMENTS, TOWERS, DOMES, ETC., Height of in Feet.–

Asinelli Tower, Italy	321 feet.
Babel, Tower of	680 "
Balbec	500 "
Balus of Notre Dame, Paris	216 "
Bartholdi Statue, New York	329 "
Belfry Tower, Bruges, Belgium	290 "
Bunker Hill Monument	221 "
Capitol, Washington	287 "
Cathedral, St. Petersburg	363 "
Cathedral, Escurial	200 "
Cathedral, St. Patrick's, New York	328 "
Cathedral, Norwich, England	315 "
Cathedral, Florence	384 "
Cathedral, Salisbury, England	404 "
Cathedral, Cronoma	392 "
Cathedral, Bremen, Ger.	324 "
Cathedral, Strasburg	468 "
Cathedral, Amiens, Fr.	422 "
Cathedral, Cologne	511 "
Cathedral, Antwerp	476 "
Cathedral, Rouen	482 "
Cathedral, Milan	438 feet.
Cathedral, Mexico	280 "
Chicago Board of Trade	303 "
Chicago Water Tower	175 "
Chimney, St. Rollox, Glasgow	455 "
Chimney, Muspratt's, Liverpool	406 "
City Hall, Philadelphia	535 "
Cleopatra's Needle, New York	68 "
Eiffel Tower, Paris	984 "
Giralda Tower, Spain	350 "
Grace Church, New York	216 "
High Bridge, New York	116 "
Hotel des Invalides, Paris	344 "
Hotel de Ville, Brussels	364 "
Leaning Tower, Pisa	188 "
Lincoln Cathedral, England	300 "
Masonic Temple, Philadelphia	230 "
Monument, London	240 "
Notre Dame Church, Antwerp	442 "
Pantheon, Paris	258 "
Pompey's Pillar, Egypt	114 "
Porcelain Tower, China	200 "
Pyramid of Cheops, Egypt	520 "
Pyramid of king Shafra	447 "
Pyramid of Sakkara	356 "
St. John's, New York	210 "
St. Mark's, Venice	328 "
St. Martin's, Landshut, Ger.	463 "
St. Mary's, Lubec	404 "
St. Paul's, New York	200 "
St. Paul's, London	366 "
St. Peter's, Rome	457 "
St. Steven's, Vienna	465 "
Torazzo Tower, Italy	396 "
Trinity Church, New York	286 "
Watkins Tower, London	1134 "
Washington Monument	555 "

MUSIC, TABLE SHOWING THE NUMBER of double Vibrations, of each Letter, from the lowest to the highest.– There must be at least 32 vibrations or waves in one second of time, to produce a musical tone. It is the lowest musical sound recognized, and is denoted by the letter C; the length of the atmospheric wave of this letter is 35 feet, and is the length of an organ pipe producing this sound. Nine octaves above this (highest sound on any musical instrument) is accomplished through a pipe ⅛ of an inch in length.

In the 1st or lowest octave, C vibrates 32 times per second; D 36, E 40, F 42⅔, G 48, A 53⅓, B 60.

2nd Octave.–C 64, D 72, E 80, F 85, G 96, A 105, B 120.

3rd Octave.–C 128, D 144, E 160, F 170, G 192, A 210, B 240.

4th Octave.–C 256, D 288, E 320, F 340, G 384, A 420, B 480.

5th Octave.–C 512, D 576, E 640, F 680, G 768, A 840, B 960.

6th Octave.– C 1024, D 1152, E 1280, F 1360, G 1536, A 1680, B 1920.

7th Octave.–C 2048, D 2304, E 2560, F 2720, G 3072, A 3360, B 3840.

8th Octave.–C 4096, D 4608, E 5120, F 5440, G 6144, A 6720, B 7680.

9th Octave.–C 8192, D 9216, E 10,240, F 10,880, G 12,288, A 13,440, B 15,360.

NAILS, NUMBER USED IN CARPENTRY.–

To case and hang one door,	1 lb.
To case and hang one window,	¾ lb.
Base, 100 lineal feet,	1 lb.
To put on rafters, joists, etc.,	3 lb. to 1000 ft.
To put up studding,	3 lb. to 1000 feet.
To lay a 6-inch pine floor,	15 lb. to 1000 feet.

NAILS AND TACKS, NUMBER PER POUND.

NAILS. Size.	No. in lb.	TACKS. Length.	No. in lb.
6penny, fence	2 inch. 80	1 oz.	¾ inch. 16,000
8 " "	2½ " 50	1¼ "	3/16 " 10,666
10 " "	3 " 34	2 "	¼ " 8,000
12 " "	3½ " 29	2½ "	5/16 " 6,400
3 " fine	1½ " 760	3 "	⅜ " 5,333
3 " "	1⅔ " 480	4 "	7/16 " 4,000
4 " "	1¾ " 300	6 "	½ " 2,666
5 " "	1¾ " 200	8 "	⅝ " 2,000
6 " "	2 " 160	10 "	¾ " 1,600
7 " "	2⅛ " 128	12 "	⅞ " 1,333
8 " "	2½ " 92	14 "	1 " 1,143
9 " "	2¾ " 72	16 "	1⅛ " 1,000
10 " "	3 " 60	18 "	1¼ " 888
12 " "	3¼ " 44	20 "	1 " 800
16 " "	3½ " 32	22 "	1⅜ " 727
20 " "	4 " 24	24 "	1⅝ " 666
30 " "	4½ " 18	. . . . .	
40 " "	5 " 14	. . . . .	
50 " "	5½ " 12	. . . . .	
60 " "	6 " 10	. . . . .	

The term penny as applied to nails is generally supposed to have been derived from pound. It originally meant so many pounds to the thousand, i.e., 6 penny meant six pounds of nails to the thousand. The thousand was always understood, and six pound, eight pound, etc., were gradually shortened until the present term penny has entirely taken the place of pound.

This supposition is at odds with the above table.

NATURAL SLOPE OF EARTH, WITH Horizontal Line.– Gravel, average, 40°; Sand, dry, 38°—wet, 22°; Earth, vegetable, 28°; Earth, compact, 50°; Rubble, 45°; Clay, dried, 45°—wet, 16°.

NAUTICAL MEASURE.– 20 leagues = 1 degree; 360° = Earth's circumference; 51 feet = 1 knot for half-minute glasses; 45 feet = 1 knot for 28-second glasses. (See also Mariners', and Circular Measure).

NICOTINE, PERCENTAGE OF IN different kinds of Tobacco.– Havana, 2%; French, 6%; Virginia, 7%; Brazilian, upward of 7%.

NORMAL TEMPERATURE OF ANIMALS.– (Expressed in Degrees of Fahrenheit).

Glowworm	74	Elephant	99½
Snail	76	Monkey	104
Shark	77	Bat	100
Oyster	82	Hog	105
Serpent	98½	Rat	102
Man	98½	Jackdaw	107
Ox	102	Cat	102
Horse	99½	Sparrow	108
Elk	103	Pigeon	109½
Chicken	111		

NUTRITIVE VALUE OF FOODS.– According to Frankland an average man confining himself to one article of food would require, to barely maintain life from day to day, 5.068 lbs. of potatoes; 1.156 lbs. of Cheshire cheese; 1.335 lbs. of pea-meal; 1.541 lbs. of ground rice; 2.345 lbs. of bread; 3.532 lbs. of lean beef; 4.3 lbs. of lean veal; 6.369 lbs. of whiting; 8.75 lbs. of white of egg; 9.865 lbs. of carrots; 12.02 lbs. of cabbage; 6⅔ bottles of stout.

It has been ascertained by experiment, that an ordinary diet should contain one part of nitrogenous matter (proteids–composed of carbon, hydrogen, oxygen, and nitrogen), to about 4 parts of non-nitrogenous diet (fat, etc.).

(See Food, Constituents, etc., of.).

WEIGHTS & MEASURES.

OIL IN SEEDS, PERCENTAGE OF.–

Bitter Almond	55	Oats	6½
Barley	2½	Rapeseed	55
Clover hay	5	Sweet Almond	47
Hemp seed	19	Turnip seed	45
Indian corn	7	White mustard	37
Linseed	17	Wheat bran	4
Meadow hay	3½	Wheat-straw	3
Oat straw	4	Wheat flour	2

PAINTING, ETC.– As an average ¼ pound of paint should be allowed per square yard for the first coat, and about ⅛ lb. for each additional coat. One pound of stopping should be allowed for every 20 square yards.

Priming consists of white lead and linseed oil. Knotting consists of red lead and size. Putty consists of Spanish whiting and linseed oil.

PAPER COUNTS.– 24 sheets = 1 quire; 10½ quires = 1 token; 20 quires = 1 ream; 2 reams = 1 bundle; 5 bundles = 1 bale.

PAPER, SIZE IN INCHES.–

PRINTING PAPER.

Flat Letter	10×16	Extra Size Folio	19×23
Law Blank	13×16	Medium-Writ. Pr.	19×24
Small Cap	13×16	Royal-Printing	20×24
Flat Cap	14×17	Medium-Printing	20×25
Crown	15×19	Double Cap	17×28
Demy	16×21	Sup Royal-Writ	20×28
Folio Post	17×22	Card Board	22×28
Check Folio	17×24	Sup. Royal-Print	22×28
Medium-Writing	18×23	Imperial-Writ	22×30
Medium	18×24	Imperial-Print	22×32

Of the different sizes there are also several different weights of each size, as Folio 16, 18, 24, etc., pounds per ream.

BOOK AND NEWSPAPER.

This can now be obtained in any size called for, as modern facilities for the manufacture of paper enable the manufacturer to fill almost any order on a short notice.

PAPER, AMOUNT REQUIRED FOR A BOOK of any Size.– The TABLE enables printers to ascertain the Number of Forms for a Book of any Size, and the Quantity of Paper necessary to print a thousand copies in any form, from Octavo to 36mo, half-sheet-wise. Example.–How many reams will be required for a 12mo Book containing 312 pages? Find the number of pages (312) in the 12mo column; in the outer column on the left of the table the number of forms is seen (26), and in the outer column on the right, the quantity of paper required is given (28 reams 12qrs.).

No. of Forms	8vo.	12mo.	16mo.	18mo.	24mo.	32mo.	36mo.	AMOUNT OF PAPER FOR 1000 COPIES.	
	Pages.	Pages.	Pages.	Pages.	Pages.	Pages.	Pages.	Reams.	Qrs.
1	8	12	16	18	24	32	36	1	2
2	16	24	32	36	48	64	72	2	4
3	24	36	48	54	72	96	108	3	6
4	32	48	64	72	96	128	144	4	8
5	40	60	80	90	120	160	180	5	10
6	48	72	96	108	144	192	216	6	12
7	56	84	112	126	168	224	252	7	14
8	64	96	128	144	192	256	288	8	16
9	72	108	144	162	216	288	324	9	18
10	80	120	160	180	240	320	360	11	
11	88	132	176	198	264	352	396	12	2
12	96	144	192	216	288	384	432	13	4
13	104	156	208	234	312	416	468	14	6
14	112	168	224	252	336	448	504	15	8
15	120	180	240	270	360	480	540	16	10
16	128	192	256	288	384	512	576	17	12
17	136	204	272	306	408	544	...	18	14
18	144	216	288	324	432	576	...	19	16
19	152	228	304	342	456	...	...	20	18
20	160	240	320	360	480	...	...	22	
21	168	252	336	378	504	...	...	23	2
22	176	264	352	396	...	...	...	24	4
23	184	276	368	414	...	...	...	25	6
24	192	288	384	432	...	...	...	26	8
25	200	300	400	450	...	...	...	27	10
26	208	312	416	468	...	...	...	28	12
27	216	324	432	486	...	...	...	29	14
28	224	336	448	504	...	...	...	30	16
29	232	348	464	...	...	...	...	31	18
30	240	360	480	...	...	...	...	33	
31	248	372	496	...	...	...	...	34	2
32	256	384	512	...	...	...	...	35	4
33	264	396	528	...	...	...	...	36	6
34	272	408	544	...	...	...	...	37	8
35	280	420	560	...	...	...	...	38	10
36	288	432	576	...	...	...	...	39	12
37	296	444	592	...	...	...	...	40	14
38	304	456	608	...	...	...	...	41	16
39	312	468	624	...	...	...	...	42	18
40	320	480	638	...	...	...	...	44	

PENDULUM, LENGTH OF TO VIBRATE Seconds at the Level of the Sea in various Places.–

Latitude 00°	00′	00″	39.0152	inches.
Latitude 45°	00′	00″	39.1270	″
Washington 38°	53′	23″	39.0958	″
New York 40°	42′	40″	39.1017	″
London 51°	31′	00″	39.1393	″
Stockholm 59°	21′	30″	39.1845	″

PLASTERING.–

	1 in. thick.	½ in. thick.	¼ in. th.
1 bu. cement will cover	1¼ sq. yd.	1½ sq. yd.	2½ sq. yd.
1 bu. cement and 1 of sand will cover	2¼ ″	3 ″	4½ ″
1 bu. cement and 2 of sand will cover	3½ ″	4½ ″	6½ ″
1 bu. cement and 3 of sand will cover	4½ ″	6 ″	9 ″

1 cubic yard of lime, 2 yards of sand, and 3 bu. of hair will cover: 75 sq. yd. on brick, 70 ″ earth, 60 ″ laths.

PLOWING TABLE, SHOWING THE QUANTITY of Land plowed by a Team moving at the rate of two miles per hour, per day of 10 hours.–

Width of Furrow.	Land.	Width of Furrow.	Land.
5 inches	= 1.0 acre.	2 feet	= 4.8 acres.
6 ″	= 1.2 ″	2½ ″	= 6.0 ″
7 ″	= 1.4 ″	3 ″	= 7.2 ″
8 ″	= 1.6 ″	3½ ″	= 8.4 ″
9 ″	= 1.8 ″	4 ″	= 9.6 ″
10 ″	= 2.0 ″	4½ ″	= 10.8 ″
11 ″	= 2.2 ″	5 ″	= 12.0 ″
12 ″	= 2.4 ″	5½ ″	= 13.2 ″
14 ″	= 2.8 ″	6 ″	= 14.4 ″
16 ″	= 3.2 ″	6½ ″	= 15.6 ″
18 ″	= 3.6 ″	7 ″	= 16.8 ″
20 ″	= 4.0 ″	7½ ″	= 18.0 ″
22 ″	= 4.4 ″	8 ″	= 19.2 ″

POWER MEASURE.– The units of force, distance, and time, are respectively 1 pound, 1 foot, and 1 minute.

Man Power.–One man's power = .0909 horse power = 3,000 units of work = 3,000 pounds raised vertically 1 foot in 1 minute, or its equivalent.

Horse Power.–One horse power = 11 men's power = 33,000 units of work 33,000 pounds raised vertically 1 foot in 1 minute, or its equivalent.

POWER, STARTING.– A power of 250 tons is necessary to start a vessel weighing 3,000 tons over greased slides on a marine railway; when in motion, 150 tons only is required.

PRESSURE, UNITS OF.–

Medium.	Pounds on sq. in.	Pounds on sq. ft.	In atmospheres.
1 foot water 39.2°	0.4335	62.425	0.0295
1 foot water 62°	0.4330	62.355	0.0294
30 in. mercury 62°	14.7225	2120.	1.
1 in. mercury 32°	0.4912	70.73	0.0334
1 foot air. . 32°	0.0006	0.0807	0.00004

1 pound to the sq. in. = 2.3 ft. water = 2 in. mer. 0.068

PRINTERS' EM.– An em is that portion of a line of print which will form a square; so named formerly when m was a square type. It is used as a unit to measure printed matter, composition being measured by the number of thousand ems.

PULSE, FREQUENCY OF BEATS.–

Age.	Beats per minute.	Age.	Beats per minute.
At birth	130 to 140	4 to 7 years	85 to 95
One month	120 ″ 125	7 ″ 14 ″	80 ″ 90
One year	115 ″ 120	14 ″ 21 ″	75 ″ 85
Two years	100 ″ 115	21 ″ 60 ″	70 ″ 75
Three years	95 ″ 100	Old age	60 ″ 65

While the above are the average, there are many instances of very low pulse, ranging from 25 beats per minute to 40 and 50.

In certain diseases, such as acute dropsy of the brain, there may be from 150 to 200 beats per minute.

In women the pulse beats are much more rapid than in men.

RADIATION.– Lamp black has the highest emissive or radiating power known; the surfaces of paper, and other similar loose material are next in order. Polished metals are the poorest radiators.

RAILROAD WEIGHTS.– When it is not convenient to weigh the articles given in the subjoined table, they are billed at the weights as given.

Ale, Beer	320 lb. per bbl.	Highwines	350 lb. per bbl.
″ ″	170 ″ ½ ″	Hun. Gr. Seed	45 ″ bu.
″ ″	100 ″ ¼ ″	Lime	200 ″ bbl.
Apples, dried	24 ″ bu.	Malt	38 ″ bu.
″ green	56 ″ ″	Millet	45 ″ ″
″ ″	150 ″ bbl.	Nails	108 ″ keg.
Barley	48 ″ bu.	Oats	32 ″ bu.
Beans, white	60 ″ ″	Oil	400 ″ bbl.
″ castor	46 ″ ″	Onions	57 ″ bu.
Beef	320 ″ bbl.	Peaches, dried	33 ″ ″
Bran	20 ″ bu.	Pork	320 ″ bbl.
Brooms	40 ″ doz.	Potatoes	150 ″ ″
Buckwheat	52 ″ bu.	″	60 ″ bu.
Cider	350 ″ bbl.	″ sweet	55 ″ ″
Charcoal	22 ″ bu.	Rye	56 ″ ″
Clover seed	60 ″ ″	Salt, fine	56 ″ ″
Corn	56 ″ ″	″	300 ″ bbl.
″ in ear	70 ″ ″	″ coarse	350 ″ ″
″ Meal	48 ″ ″	″ in sacks	200 ″ sack.
″ ″	220 ″ bbl.	Timothy Seed	45 ″ bu.
Eggs	200 ″ ″	Turnips	56 ″ ″
Fish	300 ″ ″	Vinegar	350 ″ bbl.
Flax Seed	56 ″ bu.	Wheat	60 ″ bu.
Flour	200 ″ bbl.	Whisky	350 ″ bbl.
Hemp Seed	44 ″ bu.	One yoke weight is 2000 lbs.	

ROPES, QUALITIES OF DIFFERENT KINDS.– Italian Hemp Rope is the standard of comparison and is taken as 1. All are hawser laid except hide ropes.

Ropes.	Strength.	Stiffness.	Weight.	Deflection.	Stretching.
Italian Hemp	1	1	1	1	1 to ½
Baltic	0.7 to 0.9	0.8 to 0.9	1	1	½ to ⅓
Manilla	0.9	1	0.75	0.88	½
Flax	0.9	low	...	...	⅓
Coir Halt	0.2	low	0.43	½ to ⅓	
Green Hides	0.5	high	1	0.24	
Iron Wire	3	high	4	...	
Steel	6	high	4	...	

WEIGHTS & MEASURES CONTINUED.

REFLECTORS, RELATIVE POWERS OF.—The following table shows the relative reflecting powers of polished surfaces of the metals named, the angle of incidence being 45°.

Silver	0.97	Steel	0.82
Gold	0.95	Zinc	0.81
Brass	0.93	Iron	0.77
Platinum	0.83	Cast Iron	0.74

REFRACTION, TABLE OF ABSOLUTE INDICES.—The index of refraction varies with the media, thus, light passing from air into water, the index of refraction is 4/3; from air into glass, about 3/2. The reciprocals of these numbers will give the indices of refraction when light passes in the oppisite direction; thus, from water into air it is 3/4, and from glass into air 2/3. The table gives the indices of refraction when light passes from a vacuum into any of the substances named. The index of refraction for any two substances may be found by dividing the absolute index of one by that of the other.

Vacuum	1.00000	Crown glass	1.534
Air	1.00029	Quartz crystal	1.548
Carbonic acid	1.00045	Oil of cassia	1.641
Ice	1.309	Bisulphide of carbon	1.768
Water	1.336	Flint glass	1.830
Alcohol	1.374	Diamond	2.439
Alum	1.457	Chromate of lead	2.974

ROAD MEASURES, FOREIGN, IN YARDS.—

PLACE.	MEASURE.	YARDS.	PLACE	MEASURE.	YARDS.
Arabia	Mile	2,148	Holland	Mile	6,395
Bohemia	Mile	10,137	Hungary	"	9,113
China	Li	629	Ireland	"	3,038
Denmark	Mile	8,244	Persia	Parasang	6,086
England	Mile, stat.	1,760	Poland	Mile (long)	8,101
"	" geogr.	2,025	Portugal	League	6,760
Flanders	"	6,869	Prussia	Mile	8,468
France	League, com.	4,861	Rome	"	2,025
"	" marine	6,075	Russia	Verst	1,167
"	" post	4,264	Scotland	Mile	1,984
"	Kilometre	1,090.6	Spain	League	7,416
Germany	Mile (long)	11,026	Sweden	Mile	11,700
Hamburg	"	8,244	Switzerl'd	"	9,153
Hanover	"	11,559	Turkey	Berri	1,826

SALT, AMOUNT IN THE OCEAN.—The amount of common salt in all the oceans is estimated by Schafhautl at 3,051,342 cubic geographical miles. The sulphate of soda is equal to 633,644.36 cubic miles; the chloride of magnesium is 441,811.8 cubic miles; the lime salts 108,339.44 cubic miles. These estimates are made on the supposition that the mean depth is 975 feet. Laplace estimates the mean depth at 3,250, which would make the amounts of the above substances correspondingly great.

SCREW THREADS, STANDARD PROPORTIONS.—

Diam. in inches	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
No. of threads	20	18	16	14	13	12	11	10	9
Diam. in inches	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2
No. of threads	8	7	7	6	6	5	5	4 1/2	4 1/2
Diam. in inches	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4
No. of threads	4 1/2	4 1/2	4	4	3 1/2	3 1/2	3 1/2	3	3
Diam. in inches	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2	5 3/4	6	
No. of threads	3 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	

Angle of threads = 60°. Flat surface at top and bottom = 1/8 of the pitch.

For tough bolts, the distance between the parallel sides of bolt head and nut = 1 1/2 diameters of bolt + 1/8 of an inch.

SCRIPTURE WEIGHTS AND MEASURES.—MEASURES OF LENGTH.

	Feet.	Inches.		Feet.	Inches.
A Digit =	0	.912	A Fathom =	7	3.552
A Palm =	0	3.648	Ezekiel's Reed =	10	11.328
A Span =	0	10.944	Arabian Pole =	14	7.104
A Cubit =	1	9.888	Measuring Line =	145	11.04

LONG SCRIPTURE MEASURES.

	Miles.	Paces.	Feet.
A Cubit =	0	0	1.824
A Stadium or Furlong =	0	145	4.6
A Sabbath Day's Journey =	0	729	3
An Eastern Mile =	1	403	1
A Parasang =	4	153	3
A Day's Journey =	33	172	4

Note.—1 feet = 1 pace; 1,056 paces = 1 mile.

JEWISH MONEY.

	Dollars.	Cents.
A Gerah =	0	2.5
A Bekah =	0	25.09
A Shekel =	0	50.187
A Maneh or Mina =	25	9.35
A Talent =	1,505	62.5
A Solidus Aureus or Sextula =	2	64.09
A Sicilus Aureus or Gold Shekel =	8	3.
A Talent of Gold =	24,309	0.

JEWISH WEIGHTS.

	Lbs.	Oz.	Pwt.	Gr.
The Gerah (1/2 Shekel) =	0	0	0	12
The Bekah (1/2 Shekel) =	0	0	5	0
The Shekel =	0	0	10	0
The Maneh (60 Shekels) =	2	6	0	0
The Talent =	125	0	0	0

LIQUID MEASURE.

	Gals.	Pints.
A Caph =	0	0.625
A Log =	0	0.833
A Cab =	0	3.333
A Hin =	1	2.
A Seah =	2	4.
A Bath, Ephah, or Firkin =	7	4.5
A Kor, Choros, or Homer =	75	5.25

DRY MEASURE.

	Bu.	Pk.	Qt.	Pints.
A Gachal =	0	0	0	0.141
A Cab =	0	0	1	0.833
An Omer or Gomer =	0	0	2	1.1
A Seah =	0	1	0	1.
An Ephah =	0	3	1	1.
A Letech =	4	0	0	0.
A Homer or Kor =	8	0	0	1.

SEASONS, LIGHT AND HEAT OF.—The chemical principal of the sun's rays, relatively, is more active to heat and light, during the Spring than at any other period of the year. As Summer advances, this power diminishes, and luminous force increases; while with the Autumn both light and actinism are subdued, but the calorific radiations increased. Thus the conditions of the light of the seasons vary to suit the necessities of vegetable life.—Hunt.

SEASONABLE AND UNSEASONABLE FISH.— The following table shows the periods when the different kinds of fish, that are edible and mostly in use, are "in season" and "out of season". The letter 'P' signifies that the fish are then in their prime; the letter 'O' signifies that the fish may be obtained, but are not at their best.

NAMES OF FISH.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Barbel	P								O	P	P	P
Bass				P	P	P	P	P	O			
Bream	P	P						O	P	P	P	P
Bream, Sea							O	P	P	P	P	P
Brill	P	P	P	O			O	O	P	P	P	P
Carp	P	P						O	O	P	P	P
Catfish	O	P	P	P	P	P	O					

NAMES OF FISH.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Char				O	O	P	P	P	P			
Chub	O	O							O	P	P	P
Coal fish or Saithe	P	P	P	O	O					P	P	P
Cockel	P	P	P	P				O	O	P	P	P
Cod	P	P	P	P				O	O	P	P	P
Conger			O	O	P	P	P	P	P	O		
Crab	O	O	O	O	P	P	P	P	P	O	O	O
Crayfish, sea	O	O	O	O	P	P	P	P	P			
Dab	P	P	P	O					O	O	O	O
Dace	P	P							O	P	P	P
Dory	O	P	P	P	P	P	P	P	P	P	P	P
Eel	P	P	P	P	P	P	P	P	P	P	P	P
Flounder	O	P	P				P	P	P	P	O	O
Grayling	O	O					O	P	P	P	P	P
Gudgeon	O	O							O	P	P	P
Gurnard, red	P	P	O					O	P	P	P	P
Gurnard, grey	O	P	P	P						P	P	P
Haddock	P	P	O	O			O	O	P	P	P	P
Hake	P					O	P	P	P	P	P	P
Halibut	P	P	P	O			O	P	P	P	P	P
Herring	O	O	O	P	P	P	P	P	P	P	P	P
Lampern	P	P						O	P	P	P	P
Lamprey	O	O	O	P	P	P	O					
Ling	P	P	P	P	O					O	P	P
Lobster	O	P	P	P	P	P	P	P	O	O	P	O
Mackerel			O	P	P	P	P	P	O	O	O	
Mullet, red			O	P	P	P	P	P	P	O	O	
Mullet, grey	O			O	P	P	P	P	P	O	O	
Mussel	P	P	P	O					P	P	P	P
Oyster	P	P	P	P				O	P	P	P	P
Perch	P								O	P	P	P
Periwinkle	P	P	P	P	P	P	P	P	P	P	P	P
Pike	P	P					O	O	P	P	P	
Pilchard						P	P	P	P	P	O	O
Plaice	P	P	P	P	O		O	O	P	P	P	P
Pollack	P	P	O				O	O	P	P	P	P
Prawn		P	P	P	P	P	P	P	P			
Salmon & Sea Trout		P	P	P	P	P	P			P		
Shad					P	P	O	O				
Shrimp	P	P	P	P	P	P	P	P	P	P	P	P
Skate	P	P	P	P			O	O	O	P	P	P
Smelt or Sparling	P	P	P	P	O				O	O	P	P
Sole		P	P	O	O	P	P	P	P	O	P	P
Sprat	P	P	P							O	P	P
Sturgeon		P	P	P			O	O	P	P	P	P
Tench	P								O	P	P	P
Thornback	O	O	O					O	P	P	P	P
Torsk or Tusk		P	P	O				O	P	P	P	P
Trout	O	O	O	P	P	P	O	O				
Turbot	P	P	P	P	O		O	O	P	P	P	
Whelk	P	P	P	P	P	P	P	P	P	P	P	P
Whitebait		O	P	P	P	P	P	O				
Whiting		P	P	P	O			O	P	P	P	P
Wrasse					P	P	P	O	O			

SEEDS, NUMBER PER POUND (AVOIRD.)—The following table shows the average number of seeds per pound, for the most common plants. For the number of pounds in a bushel, see Bushel.

Name.	No. Seeds per Pound.
Wheat	10,500
Barley	15,400
Oats	20,000
Rye	23,000
Canary grass	54,000
Buckwheat	25,000
Turnip, Rendle's Swede	155,000
Turnip, Cornish Holdfast	230,000
Turnip, Orange Jelly	133,000
Cabbage, Scotch Drumhead	128,000
Cabbage, Drumhead Savoy	110,000
Clover, red	249,600
Clover, white	686,400
Rye-grass, perennial	314,000
Rye-grass, Italian	272,000
Sweet Vernal grass	923,200

WEIGHTS & MEASURES.

SEEDING, TIME FOR.—The following table shows the time of sowing various seeds, and the quantity of seed per acre. The letter's signifies the months when the seeds may be sown:

SEED.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	QUANTITY PER ACRE.
Red Clover	s	s							8 to 10 lbs.
Timothy	s	s				s	s		¼ to ½ bush.
Red-top		s	s			s	s		½ " 1 "
Ky. Blue Grass		s	s	s	s	s			1½ " 2½ "
Hung. Grass			s	s					¼ " ½ "
Millet			s	s					¼ " ¾ "
Sorghum Seed			s	s					2 quarts.
Flax Seed		s	s	s					1 to 3 bush.
Corn, hills		s	s	s					4 to 6 quarts.
Rye	s	s					s	s	1 to 2 bush.
Wheat	s	s				s	s		1 " 2 "
Oats	s	s	s						2 " 3 "
Buckwheat				s	s				½ " ¾ "
Potatoes	s	s	s	s	s				10 " 15 "
S. Potatoes				s	s				Transplank.
Beets		s	s	s					4 to 10 lbs.
Carrots		s	s	s					2 " 3 "
Turnips	s	s	s			s	s		½ " 1 "
Parsnips	s	s	s	s					2 " 3 "
Onions	s	s							4 " 6 "
White Beans			s	s					½ " 1 bush.
Peas		s	s						1½ " 2½ "
Pumpkins		s	s	s					2 " 3 oz.
Barley		s	s	s					1½ to 2 bush.
Corn, broadcast		s	s	s	s				3 " 4 "
Corn, drilled		s	s	s					2 " 3 "
Broom Corn			s	s	s				½ " 1½ "
Cotton		s	s						1½ " 3 "
Hemp		s	s	s	s	s			½ " 1½ "
Tobacco		s	s	s					2 " 3 oz.

SEEDS, VITALITY OF.—Recent experiments have shown that out of 338 species, representing 74 natural orders, only 94 grow after 3 years; only 57 after 4 to 8 years; 16, from 8 to 21 years; 5, from 25 to 27 years; and 3, to 43 years. "In ordinary cases," says Asa Gray, "leguminous seeds have longest retained their germinating power; in some very well authenticated instances up to 70, or perhaps 100, years. Nearly uniform temperature, darkness, and either dryness or burial beyond atmospheric influence, most favor the prolongation of vitality."

SEXES, COMPARATIVE NUMBER AT A Birth.—The celebrated Hufeland, of Berlin, observes that the number of males born, to that of females, seems to be 21 to 20 over the whole earth, and before they reach the age of puberty, the proportion of the sexes is reduced to perfect equality, more boys than girls dying before reaching the age of fourteen.

His conclusions are as follows:—1st. There is an equal number of males and females born in the human race; 2nd. The equality occurs every day in a population of ten millions; 3rd. It occurs every week in 100,000; 4th. It occurs every month in 50,000; 5th. Every year in 10,000; 6th. In small societies every ten or fifteen years; 7th. It does not occur in individual families.

SHOEMAKERS' MEASURE.—No. 1, small size, is 4⅓ inches, and every succeeding number increases ⅓ of an inch to 13.

No. 1, large size, is 8⅓ inches, and every succeeding number increases ⅓ of an inch to 15.

SHRINKAGE OF CASTINGS.—Tin—one-fourth inch in a foot.
Zinc—five-sixteenths inch in a foot.
Lead—five-sixteenths inch in a foot.
Copper—three-sixteenths inch in a foot.
Bismuth—five thirty-seconds inch in a foot.
Brass—two-fifteenths inch in a foot.
Locomotive cylinders—⅛ inch in a foot.
Pipes—one-eighth inch in a foot.
Beams, girders, etc.—⅛ inch in 15 inches.

SICKNESS, RATIO OF.—Drs. Farr and Edmonds, of the London Congress, are authority for the following statements: 1st. The ratio of sickness rises and falls regularly with the death-rate in all countries; 2nd. Of 1000 persons, aged 30, it is probable 10 will die in a year, in which case there will be 20 of that age sick throughout the year, and 10 invalids. 3rd. Of 1000 persons, aged 75, it is probable 100 will die in a year, in which case the sick and invalids will be 300 throughout the year; 4th. For every 100 deaths let there be hospital beds for 200 sick, and infirmaries for 100 invalids.

SNOW, WEIGHT OF.—At various times it has been ascertained that snow weighs from 5½ to 10¾ lbs. per cubic foot, at a temperature of 32° (Fahr.). The weight of snow seems to vary greatly in different latitudes—it being heavier as the latitude increases. The above weights were for Washington. In Canada it weighed 14¼ lbs. on falling; twenty-four hours later, 21½ lbs., and seventy-two hours later, 28⅜ lbs.

SMOKING, COST OF.—The expense of smoking three five-cent cigars a day, principal and interest, for ten years, is $745.74; for 25 years, $3,110.74. The expense of three ten-cent cigars, at the end of ten years, is $1,471.56; for 25 years, $6,382.47; for 50 years, $54,162.14.

SOLID OR CUBIC MEASURE.—See Cubic Measure.

SPECTRUM, SOLAR.—White light from the sun in passing through a prism is decomposed into seven different colors, viz., red, orange, yellow, green, blue, indigo, and violet, in the order as given, the red being refracted least, and violet, most.

According to the Undulatory Theory, the color of light depends on the size of the minute waves that produce it. The undulations that excite in the eye the sensation of red light are each $\frac{1}{36000}$ of an inch in breadth; those that produce violet, $\frac{1}{60000}$; while the intermediate colors are produced by undulations varying between these limits.

SPECIFIC HEAT.—The quantity of heat termed specific heat, required to raise the temperature of a pound of water one degree is taken as unit. Substances requiring more or less heat than water, are said to be of higher or lower specific heat. Mercury requires thirty times the quantity, and its specific heat is one thirtieth. Hydrogen requires three and a half times less heat, and its specific heat is expressed by three and a half.

SPECIFIC GRAVITY, TABLES OF.—Specific Gravity is the ratio of the weight of a body to that of an equal volume of some other substance adopted as a standard of reference. For solids and liquids the standard is distilled water at 62° F., the barometer being at 30 inches. Aeroform bodies are referred to the air, at 32° F., and under one atmospheric pressure.

A cubic foot of rain water weighs 1000 ounces (Avoir.), and the following are tables of the relative weights of the principal substances. In all the tables, except that of Gases and Vapors; by removing the decimal point three places toward the right, that is, multiplying by 1000, the result will indicate the number of ounces (Avoir.) in a cubic foot of the substance named. To find the number of pounds in a cubic foot, divide the ounces by 16.

WOODS.

Water=1.000

Name.	SPECIFIC GRAVITY.	Name.	SPECIFIC GRAVITY.
Acacia	.800	Larch, light	.500
Alder	.510	Larch, heavy	.560
Apple tree	.793	Lignum vitæ, light	.650
Ash, light*	.700	Lignum vitæ, heavy	1.330
Ash, heavy	.840	Locust	.710
Bamboo	.400	Logwood	.900
Bay Tree	.800	Lemon	.703
Beech, light	.690	Mahogany	1.063
Beech, heavy	.850	Mahogany, Cuban	.770
Birch	.711	Maple	.755
Blue gum	.843	Mora	.920
Box	.960	Oak, English	.730
Brazil wood, red	1.031	Oak, French	.900
Bullet tree	1.046	Oak, Am., light	.720
Cabacalli	.900	Oak, Am., heavy	.860
Came	.400	Oak, Baltic	.740
Cedar of Lebanon	.560	Oak, Ital., light	.960
Cedar, Amer.	.480	Oak, Ital., heavy	1.040
Charcoal, birch	.540	Orange	.705
Charcoal, fir	.450	Pear	.661
Charcoal, oak	.330	Pine, pitch	.660
Charcoal, pine	.290	Pine, red	.640
Cherry	.715	Pine, yellow	.520
Chestnut	.640	Plum	.870
Cork	.240	Poon	.579
Cowrie	.579	Poplar, white	.510
Cypress	.598	Poplar, Italian	.420
Ebony, Indian	1.100	Poplar, yellow	.383
Ebony, Amer.	1.280	Saul	.960
Elder	.670	Spruce	.480
Elm, light	.550	Sycamore	.600
Elm, heavy	.720	Teak, Indian	.780
Fir, Dantzic	.580	Teak, African	.960
Fir, Riga	.540	Tonka	.990
Hawthorn	.910	Wainscot, Riga	.600
Hazel	.640	Walnut, Amer.	.560
Holly	.760	Walnut, Span.	.670
Hornbeam	.770	Walnut, white	.375
Juniper	.556	Watergum	1.000
Kauri or Cowdie	.530	Willow	.480
Laburnum	.920	Yew	.807

* The specific gravities of woods differ according as they are from hills or plains, dry or green. Those given above are for woods having dried in the air for ten to twelve months, and lost from one-third to one-fourth of their weight.

WEIGHTS & MEASURES CONTINUED.

SPECIFIC GRAVITY, CONTINUED.—STONES, EARTHS, SOLIDS, ETC.

NAME.	SPECIFIC GRAVITY.	NAME.	SPECIFIC GRAVITY.
Alabaster	1.874	Hematite ore	4.507
Alum	1.724	Ivory	1.917
Amber	1.078	Jargon, Ceylon	4.416
Ambergris	.780	Kentish rag	2.660
Amethyst	2.750	Lard	.947
Asbestos	2.996	Lime, chalk, gr'd	.830
Asphalte, grit	2.500	Limestone, "	2.500
Basalt	2.864	" magnesian	2.300
Bathstone	1.970	Malachite	3.700
Bermuda stone	2.620	Marble, average	2.700
" soft	1.470	Marl	1.900
Beryl, Oriental	3.549	Masonry, rubble	2.200
Bitumen	1.000	" ashlar, Portl'd	2.200
Bone, ox	1.054	" " granite	2.500
Brick, common	2.000	Mica	2.750
Brick, fire	2.400	Millstone	2.500
Brick-wall	1.800	Mortar, old	1.440
Butter	.942	Mortar, new	1.700
Caen stone	2.000	Mud	1.630
Cement, Portland	1.200	Nitre	1.900
Cement, Roman	.900	Opal	2.114
Chalk, solid	2.800-1.800	Opium	1.337
Clay, potters'	1.900	Pearl	2.510
Clay with gravel	2.000	Peat, hard	1.300
Clay, ordinary	1.900	Pitch	1.100
Coal, anthracite	1.602	Plaster of Paris	1.200
Coal, bituminous	1.250	Porcelain, Chinese	2.385
Coke	.700	Porphyry, green	2.900
Concrete	1.900	Pumice stone	.910
Concrete, lime	1.800	Purbeck stone	2.600
Coral	2.680	Puzzolana	2.700
Crystal, rock	2.653	Quartz	2.640
Diamond	3.536	Rosin	1.100
Dolomite	2.540	Rotten stone	2.000
Earth, vegetable	1.400	Salt	2.130
Earth, loamy	1.600	Sand, river	1.900
Earth, semi fluid	1.700	Sandstone	2.300
Emerald	2.678	Shale	2.600
Emery	4.000	Shingle	1.500
Fat, of beef	.924	Slate	2.900
Feldspar	2.600	Slates, Cornish	2.500
Flint	2.594	Spar	2.594
Freestone	2.200	Stone, average	2.500
Glass, bottle	2.733	Sugar	1.600
Glass, green	2.642	Sulphur, fused	2.000
Glass, flint	2.760	Tallow	.941
Glass, plate	2.940	Tar	1.015
Glass, crown	2.530	Tiles, average	1.800
Granite	2.625	Topaz	2.800
Graphite	1.987	Trap	2.700
Gum Arabic	1.432	Wax	.897
Gunpowder	.900	White lead	3.160
Gypsum	2.280	Worm-eaten floor	.891

GASES AND VAPORS.

Air = 1.0000

NAME.	SPECIFIC GRAVITY.	NAME.	SPECIFIC GRAVITY.
Vapor of bromine	5.5400	Oxygen	1.1056
Chloroform	4.2000	Air	1.0000
Vapor of turpent'e	4.8978	Nitrogen	0.9736
Acetic ether	3.0400	Carbonic oxide	0.9674
Vapor of benzine	2.6943	Olefiant gas	0.8847
" sulphuric ether	2.5860	Gaseous steam	0.6220
Chlorine	2.4400	Ammoniacal gas	0.5894
Sulphurous acid	2.2470	Light carb'd hydr'n	0.5527
Alcohol	1.6130	Coal gas	0.4381
Carbonic acid	1.5290	Hydrogen	0.0692

LIQUIDS.

Water = 1.000

NAME.	SPECIFIC GRAVITY.	NAME.	SPECIFIC GRAVITY.
Mercury	13.596	Muriatic acid	1.200
Arsenic acid	3.391	Vinegar	1.010
Bromine	2.966	Tar	1.010
Sulphuric acid	1.840	Whale oil	.920
Nitric acid	1.271	Olive oil	.915
Nitrous acid	1.550	Turpentine oil	.870
Chloroform	1.530	Potato oil	.820
Honey	1.456	Petroleum	.880
Water, Dead Sea	1.240	Naphtha	.850
Water, distilled	1.000	Ether, nitric	1.110
Water, sea	1.026	" sulphurous	1.080
Acetic acid	1.008	" nitrous	.890
Milk	1.032	" acetic	.890
Wine, Bordeaux	.994	" hydrochloric	.870
Wine, Burgundy	.991	" sulphuric	.720
Linseed oil	.940	Alcohol, proof spir.	.920
Castor oil	.970	" pure	.790
Poppy oil	.930	Benzine	.850
Rape seed oil	.920	Wood spirit	.800

CHEMICAL ELEMENTS.

THE METALS.* (Water = 1.000)

NAME.	SYMBOL	ATOMIC WEIGHT.*	SPECIFIC GRAVITY.
Aluminium	Al	27.5	2.560
Barium	Ba	137.	4.000
Cadmium	Cd	112.	8.600
Caesium	Cs	133.	.....
Calcium	Ca	40.	1.580
Cerium	Ce	92.	.....
Chromium	Cr	52.4	7.300
Cobalt	Co	59.	7.700
Copper	Cu	63.5	8.960
Davyum	Da	150.?	.....
Didymium	Di	96.	.....
Erbium	Er	112.6	.....
Gallium	Ga	69.9	5.900
Glucinum	Gl	9.4	2.100
Gold	Au	197.	12.000
Indium	In	113.4	7.400
Iridium	Ir	198.	21.150
Iron	Fe	56.	7.790
Lanthanum	La	92.8	.....
Lead	Pb	207.	11.440
Lithium	Li	7.	.590
Magnesium	Mg	24.	1.750
Manganese	Mn	55.	6.850
Mercury	Hg	200.	13.560
Nickel	Ni	59.	8.600
Osmium	Os	199.2	21.400
Palladium	Pd	106.6	11.600
Platinum	Pt	197.4	21.500
Potassium	K	39.1	.805
Rhodium	Rh	104.4	11.000
Rubidium	Rb	85.4	1.520
Ruthenium	Ru	104.4	11.400
Silver	Ag	108.	10.500
Sodium	Na	23.	.972
Strontium	Sr	87.5	2.540
Thallium	Tl	203.6	11.910
Thorium	Th	231.	7.800
Yttrium	Y	61.7	.....
Zinc	Zn	65.	7.000

*The weight of the atom of an element as compared with the weight of the atom of hydrogen, taken as a standard.

To find the proportional parts by weight of the elements of any substance whose chemical formula is known:

RULE.—Multiply together the equivalent and the exponent of each element of the compound; the product will be the proportion by weight of that element in the substance.

*The metals are good conductors of heat and of electricity, and are characterized by a peculiar metallic luster, also are electro-positive.

The non-metals are non-conductors of heat and of electricity, and are electro-negative.

The semi-metals resemble the metals in their physical properties (i.e., have the metallic luster), and the non-metals in their chemical properties (i.e., their oxides are most frequently acid anhydrides).

* THE NON-METALS.

NAME.	SYMBOL	ATOMIC WEIGHT.	SPECIFIC GRAVITY.
Boron	B	11.	1.470
Bromine	Br	80.	5.540
Carbon	C	12.	3.500
Chlorine	Cl	35.5	1.330
Fluorine	F	19.	1.320
Iodine	I	127.	4.940
Nitrogen	N	14.	.972
Oxygen	O	16.	1.105
Phosphorus	P	31.	2.000
Selenium	Se	79.4	4.300
Silicon	Si	28.	2.490
Sulphur	S	32.	2.050
Tellurium	Te	128.	6.020

* THE SEMI-METALS.

NAME.	SYMBOL	ATOMIC WEIGHT.	SPECIFIC GRAVITY.
Antimony	Sb	122.	6.700
Arsenic	As	75.	3.700
Bismuth	Bi	210.	9.700
Hydrogen	H	1.	.069
Molybdenum	Mo	92.	8.600
Niobium	Nb	94.	.....
Tantalum	Ta	182.	10.780
Tin	Sn	118.	7.280
Titanium	Ti	50.	4.300
Tungsten	W	184.	17.400
Uranium	U	120.	18.400
Vanadium	V	51.3	.....
Zirconium	Zr	89.6	4.150

MISCELLANEOUS.

NAME.	SPECIFIC GRAVITY.	NAME.	SPECIFIC GRAVITY.
Blood, human	1.054	Iron, wrought	7.698
Brass	about 8.000	" cast	7.207
Bronze	8.218	" meteoric	7.965
Cider	1.018	Iron ore	4.900
Cobalt, cast	7.812	Lead ore	7.250
Copper, cast	8.768	Live oak	1.100
Copper coin	8.915	Mercury, solid	15.600
Filbert	.600	Pewter	7.471
Gold, hammered	19.360	Silver, cast	10.474
" coin	17.647	" coin	10.534
" trinket	15.609	Steel	7.816
Gun metal	8.784	Tin, cast	7.500
Human body, living	.891	Type metal	10.400
Ice	.930	Zinc, cast	7.190

SQUARE OR SURFACE MEASURE.—See Land or Square Measure.

STAIR CASES, PROPER PROPORTION OF Treads and Risers.—

WIDTH OF TREAD.	HEIGHT OF RISER.	WIDTH OF TREAD.	HEIGHT OF RISER.
6 inches	= 8½ inches	10 inches	= 6½ inches
7 "	= 8 "	11 "	= 6 "
8 "	= 7½ "	12 "	= 5½ "
9 "	= 7 "	13 "	= 5 "

STARCH, PERCENTAGE OF, IN GRAINS.—Rice flour, 85; Indian Corn meal, 78; Oatmeal, 75; Wheat flour, 39 to 77; Barley flour, 69; Rye flour, 50 to 61; Buckwheat, 52; Peas and Beans, 42; Potatoes, 13 to 15.

WEIGHTS & MEASURES.

STEAM, LATENT HEAT OF.—Take two small vessels connected at the top by a tube. Let one contain 1 lb. of water at 32° Fahr., the other 5½ lbs. at the same temperature. Apply a spirit lamp below the vessel containing the 1 lb. of water until it is all boiled away, and its vapor condensed by passing through the tube and mingling with the 5½ lbs. of water in the other vessel. At this point the heat absorbed by the 5½ lbs. of water will raise the temperature to 212° Fahr., or boiling heat, and the combined weight will be 6½ lbs. instead of 5½ lbs., as placed in the vessel at first. The whole of this heat has been transferred from the 1 lb. of water held over the spirit lamp, although at no time has its heat exceeded 212°. Inasmuch as this heat cannot be measured by any known instrument, it is called latent heat. (See Latent Heat). The 1 lb. of water made the 5½ lbs. boil, and from this experiment we know by calculation that the combined sensible and latent heat of steam is 1200°.—Moore.

STEAM, PRESSURE OF AT DIFFERENT Degrees of Heat of the Boiler.—At 212° of heat the water begins to boil, and at 868° the iron becomes of a red heat. 212° = a pressure of 15 pounds per sq. in.

251°	=	"	30	"
294°	=	"	60	"
342°	=	"	120	"
398°	=	"	240	"
464°	=	"	480	"
868°	=	"	7,680	"

STEEL AND BRASS PLATES, WEIGHT OF Per sq. ft. by American Gauge.—

No. OF GAUGE	STEEL POUNDS.	BRASS POUNDS.	No. OF GAUGE	STEEL POUNDS.	BRASS POUNDS.
1	10.993	12.382	18	1.531	1.725
2	9.789	11.027	19	1.363	1.536
3	8.718	9.819	20	1.214	1.367
4	7.763	8.744	21	1.081	1.218
5	6.913	7.787	22	.963	1.054
6	6.156	6.934	23	.857	.966
7	5.482	6.175	24	.763	.860
8	4.882	5.499	25	.680	.766
9	4.348	4.897	26	.605	.682
10	3.871	4.360	27	.539	.607
11	3.448	3.883	28	.480	.541
12	3.070	3.458	29	.427	.481
13	2.734	3.079	30	.380	.429
14	2.435	2.742	31	.339	.382
15	2.168	2.442	32	.302	.340
16	1.931	2.175	33	.269	.303
17	1.719	1.937	34	.239	.269

SURVEYORS' MEASURE.—See Land or Square Measure.

TEARING ASUNDER.—The following shows the weight necessary to tear asunder bars one inch square of the following materials: Oak, 5½ tons; Fir, 5½ tons; Hickory 6½ tons; Ash, 4½ tons; Sycamore, 4½ tons; Birch, 4 tons; Pine, 3½ tons; Poplar, 3½ tons; Cast Iron, 7½ tons; Wrought Iron, 10 tons; Wrought Copper, 15 tons; English Bar Iron, 25 tons; American Iron, 37½ tons; Blistered Steel, 59½ tons.

TEMPERATURES, TABLE OF.—(Fahrenheit).

Air furnace....	3300
Albumen coagulates	145
Alcohol boils....	173.1
" " in vacuum	36.
" does not freeze	—120.
Animals hibernate	38.
Anise oil freezes..	50.
Antimony melts	960.
Baking tempera ture of oven	320-400.
Bat, nat. tem. ..	100.
Beef tallow melts .	100.
Bismuth melts.	520.
Blood freezes ...	30.
Boat in upper Egypt	138.
Brass melts	1900.
Brimestone (sulphur) freezes	— 4.
Bromine melts. .	9.5
" freezes. .	—7.6
" boils..	145.4
Butter melts...	135.
Cadmium melts.	600.
Carbonic acid freezes	—148.
" boils.	—108.4
Cast iron melts.	3500.
Cat, nat. tem. ..	102.
Chicken, nat. tem.	111.
Coffee and tea as usually drank.	135.
Cold, lowest artificial	—187.
Cold-blooded animals die	106.
Common fire..	1000.
Copper melts..	2160.
Eggs in hatching	104.
Elephant, nat. tem.	99.5
Elk, nat. tem....	103.
Ether boils....	94.8
" freezes..	47.
Furnace of boilers	1100.
Glass melts..	2400.
Glow worm, nat. tem.	74.
Gold melts....	1983.
Gutta percha melts	150.
Hog, nat. tem. ..	105.
Horse, nat. tem..	99.5
Ice melts	32.
Iodine melts...	224.6
" boils....	347.
Iron, bright red..	752.
" white hot ..	2900.
Jackdaw, nat. tem.	107.
Lard melts....	96.
Lead melts.....	620.
Linseed oil boils.	600.
Mercury melts	—37.9
Mercury freezes	—40.
" boils..	662.
" volatilizes	680.
Milk boils....	199.

TEMPERATURE, BOILING POINTS OF Water at different Pressures.—(Norton).

Boiling Point. °F.	Barometer, Inches.
184	16.676
190	18.992
195	21.124
200	23.454
205	25.468
210	28.744
211	29.331
212	29.922
213	30.516
214	31.120
215	31.730

Milk freezes...	29°
Monkey, nat. tem.	104.5
Mutton tallow melts	106.
Naphtha boils .	186.
Oil, turpentine, boils	305.
Olive oil freezes.	50.
Ox, nat. tem. .	102.
Oyster, nat. tem.	82.
Phosphorus melts	111.5
" inflames	120.
Pigeon, nat. tem.	109.5
Platinum melts	3080.
Porpoise, nat. tem.	100.
Potassium melts	136.
Protoxide of nitrogen boils	—157.
Putrefaction begins	50.
" rapid	93.
Rat, nat. tem. ..	102.
Rooms, best temperature for	65 to 68.
Rose oil freezes.	60.
Scalding heat.	150.
Serpent, nat. tem.	88.5
Shark, "	77.
Sheep, "	104.5
Silkworm hatches	77.
Silver melts..	1850.
Snail, nat. tem.	76.
Sodium melts .	204.
Sparrow, nat. tem.	108.
Spermaceti melts	112.
Starch, converted to sug.	160.
Steamboat's engine room, W. I.	155.
Stearine melts .	111.
Steel melts. .	2462.
Sulphur melts.	226.
" ignites.	560.
Sulphuric acid boils	17.6
Tepid bath begins	86.
" " ends.	95.
Tin melts...	451.
Turpentine freezes	15.
Vapor bath begins	99.
" ends.	130.
" Finland	170.
Warm bath begins	95.
" ends	99.
Water, sea, boils	213.2
" fresh "	212.
" " freezes	32.
" sea "	27.4
" boils (in vacuum)	72.
" " Dead Sea.	223.
Wax melts..	155.
Wine freezes..	20.
Wrought iron melts	3912.
Zinc melts...	680.

TEMPERATURE, BOILING POINT OF Water at different Altitudes.—(Norton).

Places.	Above Sea-level	Mean Height, Barometer.	Temperature, °F.
Donkia (Himalaya)	17337	15.442	179.9
Mont Blanc..	15650	16 956	185.8
Quito.....	9541	20. 750	194.2
Mt. Washington	6290	22. 905	200.4
Madrid.....	1995	27. 720	208.
London.....	0	29. 922	212.
Dead Sea (below)	—1316	31. 496	214.4

TEMPERATURE, AT SUBTERRANEAN DEPTHS. At 68 ft., 47.9° F ; at 299 ft., 48.8° ; at 621 ft., 50.7° ; at 939 ft., 52.6° ; at 1290 ft., 58.3° ; at 1414 ft., 59.4° ; at 1662 ft., 61.2° ; at 1900 ft., 61.4°.

TEMPERATURE, LUNAR.—The temperature on the Moon during the night, which is a month long, is estimated to be 300° below zero (Fahr.), and during the day, which is also a month long, at 400° above zero.

TEMPERATURE, INTERNAL OF THE Earth.—The increase in temperature is about 1° F. for every 45 feet of descent. At this rate the temperature at various depths is as follows:

Water will boil at a depth of 2,430 yds.
Lead melts at a depth of 8,400 yds.
There is red heat at a depth of 7 miles.
Gold melts at a depth of 21 miles.
Cast iron melts at a depth of 74 miles.
Soft iron at 97 miles.—D. A. Wells.

TEMPERATURE, WATERS OF SPRINGS.—

Lebanon Springs, Columbiana Co., N. Y.	75°
Warm Springs, Bath Co., Va.....	98
Sweet Springs, Monroe Co., W. Va....	79
Warm Springs, Meriwether Co., Ga.	90
Hot Springs, Garland Co., Ark....	157
Palmyra Springs, Jefferson Co., Wis.	72
Blankenships Springs, Texas Co., Mo..	75
St. Michael Springs, Azores Islands,	212
Hot Springs, Iceland	261

TEMPERATURE, EXTREME OF SUMmer.—Bengal and Sahara Desert.. 130°
Senegal and Gaudalupe..... 130
Persia, Calcutta, Central America .. 125
Afganistan and Arabian Desert.... 110
Cape of Good Hope, Utah, Greece 105
Arabia, Montreal, New York..... 103
Spain, India, China, Jamaica..... 100
France, Denmark, St. Petersburg.... 90
Buenos Ayres, Sandwich Islands.. 90
Great Britain, Siam, Peru..... 85
Siberia, Australia, Scotland 75
Moscow, 65; Patagonia, 55; Iceland.. 45

TEMPERATURE, EXTREME OF WINTER.

Boston, Mass..	—12°	Moscow, Russia	—45°
Chicago, Ill. ..	—23	New York City..	— 6
Denver, Col....	—29	Poplar River, Mont.	—63
Indianapolis, Ind.	—25	Prescott, Ariz...	18
Jakoutsk, Siberia	—73	St. Petersburg, Rus.	31
La Crosse, Wis..	—43	St. Vincent, Minn.	—54

TEMPERATURE, IN POLAR REGIONS.—In the British expedition under Capt. Nares, with the two steamers Discovery and Alert, to the Polar Sea, a sledge party advanced over the ice to latitude 83° 20' 26" N., but found no traces of human life beyond lat. 81° 52'. In all weather the minimum temperature was more than 70° below zero, —— not were the auroras brilliant or of frequent occurrence during the intense darkness of the arctic night of 142 days.

THERMOMETER, COMPARISON BETWEEN Scales of Fahrenheit, Réaumur and Centigrade.

CENT. °	FAH'T. °	RMR. °	CENT. °	FAH'T. °	RMR. °
100	= 212	= 80	25	= 77	= 20
99	= 210.2	= 79.2	24	= 75.2	= 19.2
98	= 208.4	= 78.4	23	= 73.4	= 18.4
97	= 206.6	= 77.6	22	= 71.6	= 17.6
96	= 204.8	= 76.8	21	= 69.8	= 16.3
95	= 203	= 76	20	= 68	= 16
94	= 201.2	= 75.2	19	= 66.2	= 15.2
93	= 199.4	= 74.4	18	= 64.4	= 14.4
92	= 197.6	= 73.6	17	= 62.6	= 13.6
91	= 195.8	= 72.8	16	= 60.8	= 12.8
90	= 194	= 72	15	= 59	= 12
89	= 192.2	= 71.2	14	= 57.2	= 11.2
88	= 190.4	= 70.4	13	= 55.4	= 10.4
87	= 188.6	= 69.6	12	= 53.6	= 9.6
86	= 186.8	= 68.8	11	= 51.8	= 8.8
85	= 185	= 68	10	= 50	= 8
84	= 183.2	= 67.2	9	= 48.2	= 7.2
83	= 181.4	= 66.4	8	= 46.4	= 6.4
82	= 179.6	= 65.6	7	= 44.6	= 5.6
81	= 177.8	= 64.8	6	= 42.8	= 4.8
80	= 176	= 64	5	= 41	= 4
79	= 174.2	= 63.2	4	= 39.2	= 3.2
78	= 172.4	= 62.4	3	= 37.4	= 2.4
77	= 170.6	= 61.6	2	= 35.6	= 1.6
76	= 168.8	= 60.8	1	= 33.8	= .8
75	= 167	= 60	Zero	= 32	= Zero
74	= 165.2	= 59.2	1	= 30.2	= .8
73	= 163.4	= 58.4	2	= 28.4	= 1.6
72	= 161.6	= 57.6	3	= 26.6	= 2.4
71	= 159.8	= 56.8	4	= 24.8	= 3.2
70	= 158	= 56	5	= 23	= 4
69	= 156.2	= 55.2	6	= 21.2	= 4.8
68	= 154.4	= 54.4	7	= 19.4	= 5.6
67	= 152.6	= 53.6	8	= 17.6	= 6.4
66	= 150.8	= 52.8	9	= 15.8	= 7.2
65	= 149	= 52	10	= 14	= 8
64	= 147.2	= 51.2	11	= 12.2	= 8.8
63	= 145.4	= 50.4	12	= 10.4	= 9.6
62	= 143.6	= 49.6	13	= 8.6	= 10.4
61	= 141.8	= 48.8	14	= 6.8	= 11.2
60	= 140	= 48	15	= 5	= 12
59	= 138.2	= 47.2	16	= 3.2	= 12.8
58	= 136.4	= 46.4	17	= 1.4	= 13.6
57	= 134.6	= 45.6	18	= —	= 14.4
56	= 132.8	= 44.8	19	= 2.2	= 15.2
55	= 131	= 44	20	= 4	= 16
54	= 129.2	= 43.2	21	= 5.8	= 16.8
53	= 127.4	= 42.4	22	= 7.6	= 17.6
52	= 125.6	= 41.6	23	= 9.3	= 18.4
51	= 123.8	= 40.8	24	= 11.2	= 19.2
50	= 122	= 40	25	= 13	= 20
49	= 120.2	= 39.2	26	= 14.8	= 20.8
48	= 118.4	= 38.4	27	= 16.6	= 21.6
47	= 116.6	= 37.6	28	= 18.4	= 22.4
46	= 114.8	= 36.8	29	= 20.2	= 23.2
45	= 113	= 36	30	= 22	= 24
44	= 111.2	= 35.2	31	= 23.8	= 24.8
43	= 109.4	= 34.4	32	= 25.6	= 25.6
42	= 107.6	= 33.6	33	= 27.4	= 26.4
41	= 105.8	= 32.8	34	= 29.2	= 27.2
40	= 104	= 32	35	= 31	= 28
39	= 102.2	= 31.2	36	= 32.8	= 28.8
38	= 100.4	= 30.4	37	= 34.6	= 29.6
37	= 98.6	= 29.6	38	= 36.4	= 30.4
36	= 96.8	= 28.8	39	= 38.2	= 31.2
35	= 95	= 28	40	= 40	= 32
34	= 93.2	= 27.2	41	= 41.8	= 32.8
33	= 91.4	= 26.4	42	= 43.6	= 33.6
32	= 89.6	= 25.6	43	= 45.4	= 34.4
31	= 87.8	= 24.8	44	= 47.2	= 35.2
30	= 86	= 24	45	= 49	= 36
29	= 84.2	= 23.2	46	= 50.8	= 26.8
28	= 82.4	= 22.4	47	= 52.6	= 37.6
27	= 80.6	= 21.6	48	= 54.4	= 38.4
26	= 78.8	= 20.8	49	= 56.2	= 39.2

WEIGHTS & CONTINUED MEASURES.

THERMOMETERS, NOTES ON.—Freezing point = 32° F. = 0° C. = 0° R.; Boiling point = 212° F. = 100° C. = 80° R.

To convert degrees Centigrade or Reaumur into degrees Fahrenheit, or vice versa, use one of the following formulae.—Let F = Number of degrees Fahrenheit, C = Number of degrees Centigrade, and R = Number of degrees Réaumur, hence—

$$F = \frac{9C}{5} + 32 \qquad F = \frac{9R}{4} + 32 \qquad F = C + R + 32.$$

$$C = \frac{5(F-32)}{9} \qquad R = \frac{4(F-32)}{9}$$

TEMPERING, TEMPERATURE NECESSARY FOR.—(Moore).—The article being completed, is hardened by being heated gradually to a bright red, and then plunged into cold water: it is then tempered by being warmed gradually and equably, either over a fire, or on a piece of heated metal, till of the color corresponding to the purpose for which it is required, as per table below, when it is again plunged into water.

Corresponding Temperature.		
A very pale straw.	430° F	Lancets,
Straw.	450	Razors.
Darker straw	470	Penknives, Scissors, &
Yellow	490	Wood Tools.
Brown yellow	500	Hatchets, Saws, Chipping Chisels, and all kinds of Percussive Tools.
Slightly tinged purple	520	
Purple.	530	
Dark purple	550	Springs.
Blue	570	
Dark blue	600	Soft for saws.

TENACITY – A wire made of various metals, and 0.84 of a line in diameter, will sustain weights as follows.

Lead	28 lbs.	Silver	187 lbs.
Tin	35 "	Platinum	274 "
Zinc	110 "	Copper	302 "
Gold	150 "	Iron	549 "

TEMPERANCE THERMOMETER.—

TEMPERANCE	
WATER	Health, Wealth
Milk and Water	Serenity of Mind.
Small Beer	Reputation, Happiness.
Cider and Perry	Cheerfulness, Contentment
Wine	Strength, Vigor, Nourishment—when taken at meals, and moderately.
Porter	
Strong Beer	

INTEMPERANCE	Vices.	Diseases.	Punishment.
Punch.	Idleness,	Sickness;	Debt;
Toddy.	Perverseness;	Puking,	Black Eyes;
Grog and Brandy	Quarrelling; Fighting;	Tremors;	Rags, no
Flip and Shrub..	Lying,	Inflamed Eyes; Bloated Face, Red Nose, Swollen Legs;	Shelter; Hunger; Vagrancy; Hospital;
Bitters.	Swearing,	Jaundice;	Over the
Usquebaugh		Pain in Limbs;	Hill to the
Hysteric Water	Obscenity;	Burning in	Poor-house;
Gin.	Swindling;	Hands & Feet;	Arrest;
Aniseed		Dropsy	Jail;
Rum	Perjury,	Epilepsy;	Trial;
Whiskey.	Burglary,	Melancholy; Madness;	Whipping; The Hulks;
Whiskey.	Murder,	Palsy;	Botany Bay;
Whiskey.	SUICIDE.	Apoplexy;	State Prison
		DEATH.	GALLOWS.

FREEZING POINT.

MERCURY IS FROZEN.

TIME AT WHICH MONEY DOUBLES AT Interest.—

RATE PER CENT.	SIMPLE INT.		COMPOUND INT.	
	10 years.		7 years	100 days.
10	10 years.			
9	11 "	40 days.	8 "	16 "
8	12 "	180 "	9 "	2 "
7	14 "	104 "	10 "	89 "
6	16 "	240 "	11 "	327 "
5	20 "	0 "	15 "	75 "
4½	22 "	81 "	15 "	273 "
4	25 "	0 "	17 "	246 "
3½	28 "	208 "	20 "	54 "
3	33 "	120 "	23 "	164 "
2½	40 "	0 "	28 "	26 "
2	50 "	0 "	35 "	1 "

TIME TABLE.—

60 seconds	=	1 minute.
60 minutes	=	1 Hour.
24 hours	=	1 day.
7 days	=	1 week.
29 d. 12 h. 44 m. 3 s.	=	1 lunar month.
28, 29, 30 or 31 days	=	1 calendar month.
30 days	=	1 interest month.
365 days	=	1 common year.
365¼ days	=	1 Julian year.
366 days	=	1 Leap year.
365 d. 5 h. 48 m. 49 s.	=	1 solar or tropical year.
365 d. 6 h. 9 m. 12 s.	=	1 sidereal year.
365 d. 6 h. 13 m. 49 s.	=	1 anomalistic year.
88 days	=	1 revolution of Mercury.
224 days	=	1 " " Venus.
365 days	=	1 " " Earth.
687 days	=	1 " " Mars.
4,332 days	=	1 " " Jupiter.
10,759 days	=	1 " " Saturn.
30,686 days	=	1 " " Uranus.
60,126 days	=	1 " " Neptune.
2 weeks	=	1 fortnight.
4 weeks	=	1 scholastic month
52 weeks	=	1 year, nearly.
12 months	=	1 year.
13 months	=	1 scholastic year.
12 lunar months	=	1 Mohammedan year
4 years	=	1 olympiad.
10 years	=	1 decade.
15 years	=	1 Roman indiction.
19 years	=	1 Lunar cycle.
28 years	=	1 Solar cycle (Old Style).
100 years	=	1 Century.
400 years	=	1 Solar cycle (New Style).
532 years	=	1 Dionysian period (O.S.)
1000 years	=	1 Millennium.
7600 years	=	1 Dionysian period (N.S.)
7980 years	=	1 Julian period.

TIME ON SHIPBOARD.—(Whittaker).—For the purpose of discipline, and to fairly divide the watch, the crew is mustered in two divisions, the Starboard, and the Port. The day commences at noon, and is divided thus:—Afternoon Watch, noon to 4 P.M.; First Dog Watch, 4 P.M. to 6 P.M.; Second Dog Watch, 6 P.M. to 8 P.M.; First Watch, 8 P.M. to midnight; Middle Watch, 12 A.M. to 4 A.M.; Morning Watch 4 A.M. to 8 A.M.; Forenoon Watch, 8 A.M. to noon.

Time is kept by "Bells."

Time A.M.	5 Bells—6.30	Time P.M.	1 Bell—6.30
1 Bell—12.30	6 " —7.00	1 Bell—12.30	2 Bells—7.00
2 Bells—1.00	7 " —7.30	2 Bells—1.00	3 " —7.30
3 " —1.30	8 " —8.00	3 " —1.30	4 " —8.00
4 " —2.00		4 " —2.00	
5 " —2.30	Time A.M.	5 " —2.30	Time P.M.
6 " —3.00	1 Bell—8.30	6 " —3.00	1 Bell—8.30
7 " —3.30	2 Bells—9.00	7 " —3.30	2 Bells—9.00
8 " —4.00	3 " —9.30	8 " —4.00	3 " —9.30
Time A.M.	4 " —10.00	Time P.M.	4 " —10.00
1 Bell—4.30	5 " —10.30	1 Bell—4.30	5 " —10.30
2 Bells—5.00	6 " —11.00	2 Bells—5.00	6 " —11.00
3 " —5.30	7 " —11.30	3 " —5.30	7 " —11.30
4 " —6.00	8 " —noon	4 " —6.00	8 " —midnight.

WEIGHTS & MEASURES.

TISSUES, ETC., PROPORTION OF SALT IN 1000 PARTS.–

Muscles	2.0	Saliva	1.5
Bones	2.5	Bile	3.5
Cartilages	2.8	Blood	4.5
Milk	1.0	Mucus	0.6

TORTION, RELATIVE POWER OF METALS To Resist, Lead being 1.–

Lead	1.0	Cast Iron	9.0
Tin	1.4	Swedish Iron	9.5
Copper	4.3	English Iron	10.1
Yellow Brass	4.6	Blistered Steel	16.6
Gun Metal	5.0	Shear Steel	17.0

TRANSPARENCY OF THE OCEAN.– Experiments made by Capt. Wilkes indicate that light penetrates the ocean to the depth of 80 fathoms (480 ft.). The depth at which objects cease to be visible to the eye is much less. A pot painted white was let down into the water, and the point of invisibility marked; upon taking it out the point of visibility was marked, and the two were found to vary but a fathom or two. In water at 36° F., the pot disappeared at six fathoms; in water at 76° F., at thirty fathoms; in the Gulf Stream, at twenty-seven fathoms; just outside of it, at twenty-three fathoms.–D. A. Wells.

TROY OR MINT WEIGHT.– 24 grains = 1 pennyweight; 20 pennyweights = 1 ounce; 12 ounces = 1 pound.

TYPE, SIZES OF.– All founders cast their type one uniform height and depth, but the letters vary much in their breadth. The following are the sizes mostly used in books:

Brilliant.–A column 6¼ inches long, and 2 inches wide, if set in Brilliant, it would contain 124 lines, and about 7,500 letters.

Printing is the art of producing impressions from characters or figures

Diamond is the next size; the column, as above described, would contain 107 lines, and about 6,000 letters

Printing is the art of producing impressions from characters

Pearl, 95 lines, 4,370 letters.

Printing is the art of producing impressions fr

Agate, 87 lines, 3,740 letters.

Printing is the art of producing impressio

Nonpareil, 75 lines, 3,000 letters.

Printing is the art of producing im

Minion, 64 lines, 2,360 letters.

Printing is the art of producing

Brevier, 58 lines, 1,970 letters.

Printing is the art of produci

Bourgeois, 53 lines, 1,590 letters.

Printing is the art of prod

Long Primer, 47 lines, 1,360 letters.

Printing is the art of pr

Small Pica, 43 lines, 1,120 letters.

Printing is the art of

Pica, 37 lines, 890 letters.

Printing is the art

English, 34 lines, 680 letters.

Printing is the a

Columbian, 30 lines, 550 letters.

Printing is the

Great Primer, 27 lines, 430 letters.

Printing is th

Double Pica, 22 lines, 280 letters.

Printing is t

TYPE-SETTING, RATE OF.– The rapidity with which type can be set depends upon the size of the type, and the character of the composition. An expert can set upward of 2000 ems, solid minion, 23 ems to the line, one break to each stickful, in an hour; or upward of 5000 ems, nonpareil, newspaper measure, in 3 hours.

TYPEWRITING, RATE OF.– The rapidity of this depends upon the character of the matter, and the familiarity of the writer with it. An expert can write, on ordinary correspondence, 100 words in a minute. Upward of 9000 words from dictation has been written in 1 hour 30 minutes.

TYPE-PENWRITING, RATE OF.– This term refers to the pen print as seen through out this book. In order to fairly represent this method with the above two, the writer timed his best work, and found, that in ordinary work, such as this and the above two paragraphs, he could print a page of this book in four hours and ten minutes. The page contains about 4000 ems.

Unit Measure.– 20 units = 1 score; 12 units = 1 dozen; 12 dozen = 1 gross; 12 gross = 1 great gross.

UNITED STATES MONEY.– 10 mills = 1 cent; 10 cents = 1 dime; 10 dimes = 1 dollar; 10 dollars = 1 eagle.

VENTILATION.– Each person requires at least from 3 to 4 cubic feet of air per minute. Sleeping apartments require 1000 cubic feet of space to each occupant. An ordinary gas flame requires as much air as 9 persons.

VITALITY OF SEEDS.– (See also Seeds).–

	Years		Years
Anise	3 to 5	Asparagus	2 to 3
Artichoke	5 " 6	Mustard	3 " 4
Beans	2 " 3	Okra	3 " 4
Beets	3 " 4	Onions	2 " 3
Broccoli	5 " 6	Peas	5 " 6
Cabbage	3 " 4	Pumpkin	8 " 10
Caraway	2 " 3	Parsley	2 " 3
Cauliflower	5 " 6	Parsnip	1 " 2
Carrots	2 " 3	Pepper	2 " 3
Celery	2 " 3	Radish	3 " 4
Corn (on cob)	2 " 3	Rhubarb	3 " 4
Cress	3 " 4	Sage	2 " 3
Cucumber	8 " 10	Squash	8 " 10
Endive	5 " 6	Spinach	3 " 4
Egg Plant	1 " 2	Sweet Corn	2 " 3
Leek	2 " 3	Tomato	2 " 3
Lettuce	3 " 4	Turnip	3 " 6
Melon	8 " 10	Wheat	2 " 3

VOLUME AND WEIGHT OF DRY AIR.– The Standard of Comparison is the volume of air at 32° F., under an atmospheric pressure of 29.22 inches in the barometer.

Temperature.	Volume.	Weight in lbs. per cu. ft.	Temperature.	Volume.	Weight in lbs. per cu. ft.
0° =	.935 =	.0864	162° =	1.265 =	.0638
12 =	.960 =	.0842	172 =	1.285 =	.0628
22 =	.980 =	.0824	182 =	1.306 =	.0618
32 =	1.000 =	.0807	192 =	1.326 =	.0609
42 =	1.020 =	.0791	202 =	1.347 =	.0600
52 =	1.041 =	.0776	212 =	1.367 =	.0591
62 =	1.061 =	.0761	230 =	1.404 =	.0575
72 =	1.082 =	.0747	250 =	1.444 =	.0559
82 =	1.102 =	.0733	275 =	1.495 =	.0540
92 =	1.122 =	.0720	300 =	1.546 =	.0522
102 =	1.143 =	.0707	325 =	1.597 =	.0506
112 =	1.163 =	.0694	350 =	1.648 =	.0490
122 =	1.184 =	.0682	375 =	1.689 =	.0477
132 =	1.204 =	.0671	400 =	1.750 =	.0461
142 =	1.224 =	.0659	450 =	1.852 =	.0436
152 =	1.245 =	.0649	500 =	1.954 =	.0413

WATER, WEIGHTS AND MEASURES OF.–

	Fresh.	Salt.
Greatest density	= 39.2° Fahr.	= Freezing point.
1 cu. ft. at 40°	= 62.425 lbs.	= 64 lbs.
1 cu. in. at 40°	= .036126 lbs.	= .037037 lbs.
1 cu. ft. at 40°	= 7.500 gals.	= 7.48 gals.
1 gallon weighs	= 8.33 lbs.	= 8.61 lbs.
1 ton	= 35.943 cu. ft.	= 35 cu. ft.
1 ton	= 240 gals.	= 233 gals.
Freezes	= 32° Fahr.	= 27° Fahr.
Boils	= 212° Fahr.	= 221° Fahr.

1 cubic foot of ice weighs 58.08 lbs.

Water evaporates at all temperatures.

In freezing it expands .076 of its bulk.

By weight 88.889 parts = oxygen; 11.11 = hydrogen.

By measure 1 part = oxygen; 2 = hydrogen.

In changing to the gaseous state, water increases in volume 1696 times.

About 35 part of the weight of sea water is salt.

WATERFALLS, HEIGHT OF.–

	Feet.
Cerosola Cascade, Alps, Switzerland	2,400
Falls of Arve, Savoy	1,600
Lanterbaum, Lake Theen, Switzerl'd.	900
Natchikin Falls, Kamschatka	300
Falls of Terni, near Rome	300
Mont Morency Falls, Quebec, Canada	250
Fryer's, near Lochness, Scotland	200
Niagara Falls, North America	164
Lidford Cascade, Devonshire, England	100
Sentinel, Yosemite Valley, California	3,270
Yosemite, " " "	2,634
Royal Arch, " " "	2,000
Genesee Falls, Rochester, N.Y.	96
Missouri Falls, Montana	94
Waterfall Mountain Cascade, S. Africa	85
Passaic Falls, New Jersey	71
Mohawk Falls, N.Y.	68
Falls of St. Anthony, Upper Mississippi	60
Nile Cataracts, Upper Egypt	40
Tivoli Cascade, near Rome	40

WATER, AMOUNT IN VARIOUS PARTS OF the Body, in 1000 Parts.–

Teeth	100	Bile	880
Bones	130	Milk	887
Cartilage	550	Pancreatic Juice	900
Muscles	750	Lymph	960
Ligaments	768	Gastric Juice	975
Brain	789	Perspiration	986
Blood	795	Saliva	995

WATER, VARIOUS TEMPERATURES OF Sea water is seldom below 40°; springs, about 45°; pools and small rivers are as the atmosphere; fermentation, 57° to 77°; drying herbs, etc., 77° to 122°.

WEIGHTS & CONTINENTAL MEASURES USED.

WATER-POWER, TO CALCULATE.—Niagara Falls has a capacity of more than ten millions of cubic feet per minute, equal to three million horse power nominal, or nine million real.

To calculate the power, in foot-pounds or horse-power, of any water-fall, Multiply the area of the cross section in feet by the velocity in feet per minute, and multiply by 62½, the number of pounds in a cubic foot of water, and this by the vertical fall in feet, which gives the number of foot-pounds per minute of the fall; divide by 33,000 to get the horse-power.

EXAMPLE.—The flume of a mill is 15 feet wide, the water is 4 feet deep, the velocity 50 feet per minute, and the fall 10 feet; what is the horse-power of the fall?

Operation.—15 x 4 x 50 x 10 x 62½ = 1,875,000. Then, 1,875,000 ÷ 33,000 = 56⅞ horse-power.

WATER, TEMPERATURE OF AT DIFFERENT Pressures.—The temperature of boiling water at atmospheric pressure, or exposed to air, is 212°; under 60 lbs. pressure of steam as shown by steam gauge, 307°; usual heat of superheated steam, 380° to 400°.

WATER, AMOUNT USED FOR DRINKING Purposes.—Assuming that each individual drinks an average of one quart of water each day, during a life of 70 years, he would drink 203 barrels. The total population of the earth drink each year 1,377,863,900 Hogsheads, equivalent to a lake having an area of 100 square miles, and 6 feet in depth.

WAVES, SIZE AND FORCE OF.—The dynamic force of waves is greatest at the crest of the wave before it breaks, and its power of raising itself is measured by various facts. At Wasburg, Norway it has risen 400 feet, and on the coast of Cornwall, 300 feet. There are cases showing that waves have sometimes raised columns of water equivalent to a pressure of from three to five tons per square foot.

The extreme height of mid-ocean waves is estimated to be from 20 to 22 ft., and the average force 611 lbs. per square foot during the summer months, and 2086 lbs. during the winter months.

By observation it has been determined that when waves had heights of

8 ft.,	there were	35	per mile,	and	8 per minute.
15 "	"	6	"	"	5 "
20 "	"	3	"	"	4 "

WEEDS, NUMBER OF SEEDS OF.—Dr. Lindley estimates as a low average the following number of seeds from each of these four plants:

1 plant of	Groundsel	produces	2,080
1 "	Dandelion	"	2,740
1 "	Sow Thistle	"	11,040
1 "	Spurge	"	540

The above estimates, the average of which is 4,100, may also be applied to pig-weed, burdock, fox-tail, chick-weed, and purslane.

The seed from the first four plants will cover three and a half acres of land at three feet apart.

WEDDING ANNIVERSARIES.—

End of	1st	year is the	Cotton	Wedding.	
"	2nd	" "	Paper	"	
"	3rd	" "	Leather	"	
"	5th	" "	Wooden	"	
"	7th	" "	Woolen	"	
"	10th	" "	Tin	"	
"	12th	" "	Silk or Fine Linen	"	
"	15th	" "	Crystal	"	
"	20th	" "	China	"	
"	25th	" "	Silver	"	
"	30th	" "	Pearl	"	
"	40th	" "	Ruby	"	
"	50th	" "	Golden	"	
"	75th	" "	Diamond	"	

WEIGHTS AND MEASURES, HISTORY OF. The earliest units of lineal measure were the finger, the thumb, the digit, the palm, the hand, the forearm (cubit), the fathom (space from end of one arm to end of other, both arms being extended), the girdle, the foot, the span, the stride, the mile of 1000 paces, etc. Seeds were used as units both of weight and of length.

In 1266 it was enacted in England that "an English penny, called a sterling, round and without clipping, shall weigh 32 wheat corns, from the midst of the ear, and 20 pence shall make an ounce, and 12 oz. 1 pound, and 8 pounds do make a gallon of wine, and 8 gallons of wine do make a London bushel, which is the ¼ part of a quarter; and in 1324, that "3 barleycorns, round and dry, shall make an inch" (meaning originally twelfth part), and 12 in. a foot." Other primitive standards of weight were the weight of a man, the load of a man, of an ass, bullock, mule, or camel.

Troy weight, supposed to be derived from the fair of Troyes, was used in England when, about the beginning of the 14th century, its foreign commerce began to enlarge.

Avoirdupois weight, now used for all merchandise sold by weight, except the precious metals and the precious stones, has been in use in England for many centuries. The word "avoirdupois" (to have weight) occurs first in the English Statutes in 1335.

In the United States, Congress adopted the decimal system in the subdivision of money. In 1836 a law was enacted for regulating the Weights and Measures of the Union, by which the Secretary of the Treasury was directed to supply standards of weights, of length, and of capacity, according to the standards of Great Britain, to the Governors of States, and Revenue Collectors. John Quincy Adams reported in 1821 in favor of the British standards, because they were in general use, and a change to the decimal system (Metric System), would be attended with great embarrassment.

The Metric System was legalized in the United States on July 28, 1866.

WHEAT, GRADES OF.—Weight, color, and cleanliness are the principal considerations in determining the grade of wheat.

The word club is used in America and other countries to designate a kind or species of wheat, but in Liverpool it is used only to designate the best quality or the highest grade, and in that market any kind or species of wheat of the quality of the grade is called Club Wheat.

In Liverpool the grades are Club and Average, and buyers are further guided by subdivisions of these grades.

GRADE.		1st Division.		2nd Division.		Color.	Cleanliness. MIXED WITH DUST AND OTHER GRAIN.
No.	Name.	No.	Name.	No.	Weight.		
1	Club	1	Choice.	1	63 lbs. per bush.	Extra White.	Clean.
		2	Common.	1	63 lbs.	White.	Clean.
				2	63 lbs.	Light.	Clean.
				1	63 lbs.	Dark.	Clean.
		1	Choice.	2	63 lbs.	Dark.	Mixed.
				3	60 lbs.	Light.	Clean.
				4	60 lbs.	Dark.	Clean.
2	Average.			1	60 lbs.	Dark.	Mixed.
		2	Common.	2	57½ "	Light.	Clean.
				3	57½ "	Dark.	Clean.
				4	57½ "	Dark.	Mixed.

WHEAT, COMPOSITION OF.—Wheat varies considerably as to the proportion of starch, gluten, etc., which it contains. One hundred parts of the grain of wheat contain on an average—water, 14.83; gluten, 19.64; albumen, 0.95; starch, 45.99; gum, 1.52; sugar, 1.50; oil, 0.87; vegetable fiber, 12.34; ash, 2.36; total, 100.00.

The ash is rich in phosphoric acid, magnesia, and potash. Its composition is as follows: Potash, 29.97; soda, 3.90; magnesia, 12.30; lime, 3.40; phosphoric acid, 46.00; sulphuric acid, 0.33; silica, 3.35; peroxide of iron, 0.19; chloride of sodium, 0.09; total, 100.00.

Of flour, the best wheat yields 76 to 80 per cent, sometimes even 86 per cent, whereas, inferior kinds seldom yield more than 68 per cent, and sometimes only 54 to 56 per cent.

Wheat-straw contains, on an average, nitrogenous substances, 1.85; non-nitrogenous substances, 67.56; mineral substances, 4.59; water, 26.00; total, 100.00. The ash of straw is as follows: Potash, 12.14; soda, 0.60; magnesia, 2.74; lime, 6.23; phosphoric acid, 5.43; sulphuric acid, 3.88; silicia, 67.88; peroxide of iron, 0.74; chloride of sodium, 0.22; total, 100.00.

WIND, VELOCITY OF. (See also Velocity, Table-index).—A body of air in motion is called wind. It travels at various rates and in many different directions. By means of an instrument called the anemometer (see cut), it has been ascertained that the velocity of a light wind is 5 miles an hour; of a "stiff breeze, 25 miles; of a storm, 50; of a hurricane, from 80 to 100, or even 150, and of a cyclone, 180.

WEIGHTS & MEASURES.

WIND-MILLS, POWER OF AT DIFFERENT Velocities of the Wind.—The length of an arm (whip) is divided into 7 parts, the sails extending over 6 parts. The force of the wind at 10 miles an hour, is half a pound per square foot; at 14 miles is a pound; at 20 miles, 2 lbs.; at 25 miles, 3 lbs.; at 35 miles, 6 lbs.; at 45 miles, 10 lbs.; at 60 miles, 17¾; at 100 miles, nearly 50 lbs.

The driving shaft of a wind-mill is to be set at an elevated angle with the horizon when set in low localities, and at a depressed angle when set on elevations. These angles may range from 3° to 35°. To give the fullest effect to the force of the wind, the sails are inclined to the axis from 72° to 75°. The tips of the sails often move 30 miles per hour, or 44 feet per second. From tip to tip is about 70 feet, and the breadth from 5 to 6 feet. The performance of such a mill is equivalent to the power of 34 men.

WINE OR LIQUID MEASURE.—4 gills = 1 pint; 2 pints = 1 quart; 4 quarts = 1 gallon; 31½ gallons = 1 barrel; 42 gallons = 1 tierce; 63 gallons = 1 hogshead; 2 hogsheads = 1 pipe or butt; 2 pipes = 1 ton.

The wine gallon contains 231 cu. in.

WIRE, BARBED, AMOUNT REQUIRED for Fences.—The table is based upon each pound of wire measuring one rod (16½ feet).

	1 Line.	2 Lines.	3 Lines.
1 square acre	50½ lbs.	101½ lbs.	152 lbs.
Side of a sq. acre ..	12½ "	25½ "	38 "
1 square half-acre.	36 "	72 "	108 "
1 square mile ...	1280 "	2560 "	3840 "
Side of sq. mile ...	320 "	640 "	960 "
100 rods in length	100 "	200 "	300 "
100 feet " "	6⅛ "	12⅛ "	18⅜ "

WOOD-WORKING MACHINERY, SPEED OF.—Circular saws for ripping soft wood, 9,000 ft. per minute at the periphery. Ripping hard wood, 6,800 ft. per minute at the periphery. Cross-cutting soft wood, 10,000 ft. per minute, and cross-cutting hard wood, 7,500 ft. per minute.

Mill or reciprocating saws, designed to carry not more than one saw per 1 in. width of saw or swing frame. To cut logs up to 4 ft. sq., 110 revs. per min.; 3 ft. 6 in. sq., 120 revs. per min.; 3 ft. sq., 125 revs. per min.; 2 ft. 6 in. sq., 135 revs. per min.; 2 ft. sq., 155 revs. per min.; 1 ft. 6 in. sq., 180 revs. per min.

Double Equilibrium Deal Sawing Frames (balance swing frames). To cut two deals up to 14 in. x 5 in., 300 revs. per min.; 18 in. x 6 in., 260 revs. per min.; 24 in. x 7 in., 220 revs. per min.

Single Deal Sawing Frames.—To cut one deal up to 11 in. x 3 in., 260 revs. per min.; 14 in. x 4 in., 250 revs. per min.; 18 in. x 6 in., 215 revs. per min.

Single-bladed Frames, 1,500 feet per min.

Band Saws.—Blades running on wheels up to 3 ft. diameter. For sawing soft woods. Traverse of saw-blade per min. up to 4,500 ft.; oo. hard wood, 3,500 ft.; do. very hard wood, ivory, etc., 750 ft.; do. iron, 250 ft.

Jigger Saws, to cut 12 in. deep, 800 to 1000 revs. per min.

Planing Machines.—The cutting edges of planing and molding irons—when two only are employed and arranged on cutter block varying in diameter from 4 in. to 9 in. in diameter—should be speeded to travel from 5,000 to 6,000 feet per minute.

Mortising Machines. (Reciprocating).—Heavy machines to mortise up to 3 in. wide, 175 to 275 strokes per min. 1 in. wide, 200 to 300 strokes; 1 in. wide (movable table), 275 to 400 strokes.

Rotary Mortising and Boring Machines.—Soft wood, 2,000 revs. per min.; hard wood, 1,200 per min.

Tenoning Machines.—Heavy machines, average 3,000 ft. of cutting edge per minute. Light machines, 3,000 to 4,000 ft. of cutting edge per minute.

Emery wheels for saw-sharpening, etc., 4,500 to 6,000 ft.

WORDS, NUMBER USED BY DIFFERENT Persons.—Shakspeare, who had the richest vocabulary used by any Englishman, employed only 16,000 words. (There are upward of 60,000 different words in the English Language). Milton used but 8,000, and the average graduate from any of the great universities, rarely has a vocabulary of more than 3,000 or 4,000 words. The ordinary person can get along very comfortably with 500 words, and in the rural districts a knowledge of 200 words is sufficient to carry a man through his life. This of course refers to the needs of conversation. A man reading newspapers and well-written books, needs upward of 2,000 words. The Old Testament contains 5,642 different words.

WORDS, TABLE SHOWING THE RELATIVE Proportion of Anglo-Saxon Words in different Departments of English Literature.—(De Mille).

The English Bible..	93	Oratory	76
The Prayer Book..	87	History.....	72
Poetry.....	88	Newspapers.....	72
Prose Fiction	87	Works on Rhetoric. ..	69
Essays.....	78		

WORDS, PROPORTION OF FOREIGN IN the English Language.—From an examination of the dictionary, Dean Trench comes to the following conclusion. Suppose the English language to be divided into 100 parts; of these, to make a rough distribution, 60 are Anglo-Saxon; 30 are Latin; 5 are Greek; and the remaining 5 parts are to be divided among all the other languages from which isolated words have been derived.

WINTER AND SUMMER TEMPERATURE.—The average difference between winter and summer temperature varies with the distance from the equator. At Singapore it is but 2°; at Bombay the difference is 6°; at Calcutta, 14°; at London, 23°; at St. Petersburg, 43°; at Quebec, 54°; New York, 44°; Bismarck, N. D., 63°; San Diego, Cal., 13°; Indianapolis, 48°; Chicago, 48°; Denver, 45°.

MISCELLANEOUS WEIGHTS AND MEASURES.

Apples, green, bushel = 50 lbs.; barrel = 200 lbs.
Almonds, seron = 1 to 2 cwt.
Ashes, pot or pearl, barrel = 450 lbs.
Beef, Pork, or Bacon, hogshead = 1,000 lbs.
Butter, bbl. = 224 lbs.; firkin = 56 lbs.; tub 84 lbs.
Bark, cord = 2,000 lbs.
Beer, hogshead = 54 gallons.
Brandy, puncheon = 110 to 120 gals; hhd. = 53 to 60 gals.
Bricks, common, each = 5 lbs.
Cement, barrel = 300 lbs.
Charcoal, bushel = 22 lbs.
Claret, hogshead = 46 gallons.
Coffee, tierce = 5 to 6 cwt.; bag, Rio = 162 lbs.; St. Domingo = 130 lbs.; packet, Java = 50 lbs.; bale, Mocha, = 2 to 2½ cwt.
Coke, bushel = 40 lbs.
Cotton, bale = 300 to 400 lbs.
Eggs, barrel = 200 lbs.
Fathom = 6 feet.
Figs, drum = 24 lbs.
Fish, quintal = 112 lbs.; barrel = 200 lbs.
Flax, Russian bale = 5 to 6 cwt.
Flour, barrel = 196 lbs.
Fodder of Lead = 19½ cwt.
Ginger, ground, box = 24 lbs.
Hair's Breadth = 1/48 of an inch.
Hand = 4 inches.
Hides, green, average each = 85 lbs.; dry, average = 33 lbs.
Honey, gallon = 12 lbs.
Hops, bag = about 2½ cwt.
Ice, bushel = 80 lbs.
Indian Meal, hogshead = 800 lbs.
Lard, barrel = 333 lbs.
Last = 10 quarters of corn.
Lemons, box, Sicily, = about 300 lbs.
Lime, barrel = 225 lbs.
Line = 1/12th of an inch.
Mace, case = about 1½ cwt.
Madeira, pipe = 92 gallons.
Man's Load = 5 bushels.
Market Load = 40 bushels.
Metre = 3.28 feet.
Nail = 2¼ inches.
Nails, keg = 100 lbs.
Oranges, box, double O, = 300 to 350 lbs.
" " single O, = 175 to 350 "
Oysters, bushel = 100 lbs.
Pace = 3 feet.
Palm = 3 inches.
Pork, barrel = 200 lbs.; hogshead = 1,000 lbs.
Port Wine, pipe = 115 gallons.
Resin, barrel = 300 lbs.
Rum, puncheon = 100 to 110 gallons.
Powder, keg = 25 lbs.
Raisins, cask = 100 lbs.
Salma of Oil = 42.16 gallons.
Salmon, box = 120 to 130 lbs.
Salt, hogshead = 30 bushels; barrel = 3½ bushels; bushel = 70 lbs.
Sand, Gravel, etc., cubic foot = 150 lbs.
Sherry, butt = 108 gallons.
Skippond, Gottenburg, = 300 lbs.
Soap, barrel = 256 lbs.; box = 75 lbs.
Span = 9 inches.
Stone, dressed, cubic foot = 180 lbs.
Straw or Hay, load = 36 truss.
Sugar, barrel = 200 to 250 lbs.; box = 400 to 500 lbs.
Tallow, barrel = 333 lbs.
Tar, barrel = 300 lbs.
Tea, chest, Congou, = 75 lbs.; Hyson, chest = 60 to 84 lbs.
Teneriffe, pipe = 100 gallons.
Ton of Wood = 2 stones.
Truss of Hay = 56 to 60 lbs.
" " Straw = 40 lbs.
Turpentine, barrel = 300 lbs.
Vara, Spanish, = 8 feet.
" of Baracoa = 20 feet.
Whale Oil, barrel = 31½ gallons.
Whiskey, Scotch, puncheon 110 to 130 gals.
Wood, hickory, cord = 4,500 lbs.
" oak " = 3,500 lbs.
Wool, pack = 240 lbs.
" sack = 308 lbs.
Yard = 0.9143835 metre.
Yarn, skein = 80 turns around a 54-in. wheel.

WHO? WHAT? WHERE? WHEN?

JOHN ADAMS!

JOHN QUINCY ADAMS.

ALEXANDER THE GREAT—FROM A COIN.

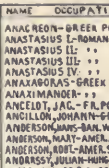
CHESTER A. ARTHUR

LOUIS AGASSIZ.

PHILIP AUGUSTUS.

LORD BACON.

JAMES G. BLAINE.

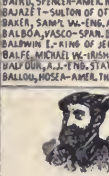


WILLIAM CULLEN BRYANT.

JAMES BUCHANAN.

JULIUS CAESAR.

CHARLEMAGNE.



CHARLES V.

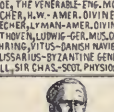
NAME	OCCUPATION	BORN
AALI PASHA – TURKISH STATESMAN		
ABAKA, KHAN- PERSIAN EMPEROR – D.		1282
ABANCHAN, D.F.-FR. STATESMAN – D.		1751
ABASCAL, J.F. - SPAN.		1743
ABBAS I. - SHAH OF PERSIA – D.		1557
ABBAS, MIRZA-PERS. PRINCE – D.		1789
ABBAS PASHA-VICEROY OF EGYPT – D.		1813
ABBATUCCI, CHAS.-FR. GENERAL – D.		1771
ABBATUCCI, J.P.-FR. GENERAL – D.		1798
ABBATUCCI, J.P.-FR. DIPLOMAT – D.		1799
ABBOT, BENJ. - AMER. EDUCATOR – D.		1763
ABBOT, SAML. - AMER. MERCHT – D.		1732
ABBOTT, JACOB - AMER. AUTHOR – D.		1803
ABBOTT, J.S.C. - AMER. AUTHOR – D.		1805
ABBT, THOS.-GER. AUTHOR – D.		1766
ABD-EL-KADER-ARAB CHIEF – D.		1807
ABDUL-AZIZ - TURK. SULTAN – D.		1830
ABDUL-MEJID – D.		1861
A'BECKET, GILBT-ENG. AUTHOR – D.		1854
ABBEG, J.F.H.-GER. JURIST – D.		1794
ABEKEN, B.R.-GER. WRITER – D.		1868
ABELARD, PIERRE-FR. PHILOS. – D.		1079
ABERCROMBIE, JAS.-BRIT. GENERAL – D.		1706
ABERCROMBIE, JOHN-SCOT. PHYSICIAN – D.		1780
ABERCROMBY, SIR R.-BRIT. GENERAL – D.		1734
ABERCROMBY, SIR RT. – D.		1740
ABERDEEN, G.H.G.-SCOT. STATESMAN – D.		1784
ABERNETHY, JNO.-ENG. SURGEON – D.		1766
ABINGER, JAS.-ENG. LAWYER – D.		1766
ABOUT, E.F.V.-FR. WRITER – D.		1885
ABRANTES, ANDOCHE, FR. SOLDIER – D.		1813
ABRANTES, DUCHESS-FR. AUTHORESS – D.		1871
ABT, FRANZ - MUSICAL COMPOSER – D.		1885
ABU-BEKER-ARAB. CALIPH – D.		581
ABU-FEMAR-ARABIC POET – D.		1000
ACCUM, FRIEDRICH-GER. CHEMIST – D.		1838
ACHARD, FRANZ-GER. PHILOSOPHER – D.		1751
ACHENDACH, A.-GER. PAINTER – D.		1881
ACHENWALL, GOTTFRD-GER. STATIST – D.		1772
ACOSTA, JOSE DE - SPAN. WRITER – D.		1532
ADAIR, JOHN, AMER. SOLDIER & SENATOR – D.		1783
ADAIR, SIR ROBT.-BRIT. DIPLOMATIST – D.		1855
ADAM, A.L.-FR. MUS. COMPOSER – D.		1856
ADAM, ALEXR. – D.		1809
ADAM, ROBT.-BRIT. ARCHITECT – D.		1792
ADAMS, CHAS. B.-AMER. CHEMIST – D.		1864
ADAMS, CHAS. F.-AMER. REPRESENTV – D.		1801
ADAMS, DANIEL-AMER. AUTHOR – D.		1773
ADAMS, HANNAH-AMER. WRITER – D.		1755
ADAMS, JOHN-2ND PRES. OF U.S. – D.		1735
ADAMS, J.Q. -6TH PRES. OF U.S. – D.		1767
ADAMS, SAML.-REVOLUTY PATRIOT – D.		1722
ADAMS, WM.T.-NOM DE PLUME WRITER – D.		1822
ADANSON, MICHL-FR. NATURALIST – D.		1727
ADDISON, JOSEPH-ENG. AUTHOR – D.		1672
ADELAIDE, ST.- QUEEN OF ITALY – D.		917
ADELUNG, JOHAN-GER. PHILOLOGIST – D.		1732
ADET, PIERRE R.-FR. POLITICIAN – D.		1763
ADELGREIFT, KARL-SWED. SOLDIER – D.		1751
ADLERSPARRE, GUS.-SWED. STATESMAN – D.		1760
ADOLPHUS, JOHN-ENG. HISTORIAN – D.		1774
ADOLPHUS, FREDK-KING OF SWEDEN – D.		1771
ADOLPHUS OF RUSSIA-GER. EMPEROR – D.		1294
ADRIAN I.-ROMAN PONTIFF – DIED,		795
ADRIAN II. " "	"	DIED, 872
ADRIAN III. " "	"	DIED, 885
ADRIAN IV. " "	"	DIED, 1159
ADRIAN VI. " "	"	DIED, 1523
ADRIAN VI. " "	"	D. 1459
AESCHINES-GRECIAN ORATOR – D.C.		389
AESCHYLUS " POET – D.C.		525
AESOP " FABULIST – D.C.		620
AETIUS-ROMAN GENERAL – D.		396
AFRASIEFF, ALEX.-RUSSIAN AUTHOR – D.		1826
AFFR, DENIS-ARCHBISHOP OF PARIS – D.		1793
AFZELIUS, ARVID AUG.-SWED. AUTHOR – D.		1785
AGASSIZ, LOUIS-AMER. NATURALIST – D.		1801
AGATHO-ROMAN PONTIFF – DIED,		682
AGATHON-GRECIAN TRAGIC POET – B.C.		447
AGNESI, MARIA-ITALIAN SCHOLAR – D.		1118
AGRICOLA, CNEIUS-ROM. GENERAL – D.		93
AGRICOLA, GEORG-SAX. MINERALOGIST – D.		1490
AGRICOLA, RUDOLF-GER. SCHOLAR – D.		1442
AGRIPPA, HENRY-GER. PHILOSOPHER – D.		1486
AGRIPPA, MAR. VIP.-ROMAN GENERAL – D.		63
AGUESSEAU, HENRI-FRENCH JURIST – D.		1668
AGUILAR, GRACE-ENG. AUTHORESS – D.		1816
AGUSTIN-SPANISH PATRIOT – DIED,		1857
AHLEFELD, CHARLOTTE-GER. NOVELIST – D.		1861
AHN, JOHANN-GER. GRAMMARIAN – D.		1796
AIGUILLON, A.R.B.F.-FR. STATESMAN – D.		1720
AIKIN, JOHN-ENG. AUTHOR – D.		1741
AIKIN, LUCY-ENG. AUTHORESS – D.		1781
AINSWORTH, MAR.-GER. ARTIST – D.		1801
AINSWORTH, WM.-ENG. GEOLOGIST – D.		1801
AINSWORTH, W.H.-ENG. NOVELIST – D.		1805
AIRY, GEO.B.-ENG. ASTRONOMER – D.		1801
AITZEMA, LIEUWE-DUTCH HISTORIAN – D.		1600
AKBAR - SULTAN OF THE MOGULS – D.		1543
AKENSIDE, MARK-ENG. POET – D.		1721
AKERMAN, A.L.-AMER. ATTY GEN. – D.		1823
AKERS, WM.F.-AMER. SCULPTOR – D.		1823
ALARIC I.-KING OF VISIGOTHS		395
ALBA, FERD. DUKE OF -SPAN. GEN'L – D.		1508
ALBANI, FRANCESCO -ITAL. PAINTER – D.		1578
ALBERONI, GIULIO - SPAN. STATESMAN – D.		1752
ALBERT I.-GER. EMPEROR		1248
ALBERT II. " "		1298
ALBERT-PRINCE CONSORT OF ENG		1819
ALBERT EDWARD-PRINCE OF WALES		1841
ALBERTUS MAGNUS - DAY PHILOS. – D.		1193
ALBINUS, B.S.-GER. ANATOMIST – D.		1697
ALBONI, MARIETTA-ITAL SINGER		1824
ALBRET, JEANNE - QUEEN OF NAVARRE – D.		1572
ALCIBIADES-GRECIAN GENERAL – D.C.		404
ALCOTT, W.A. AMER. AUTHOR – D.		1768
ALDEN, JAS.-AMER. ADMIRAL – D.		1809
ALDRICH, THOS.B.-AMER. POET		1836
ALDROVANDUS, U.-ITAL. NATURALIST – D.		1522
ALEMBERT, JEAN-FR. PHILOSOPHER – D.		1717
ALEXANDER THE GREAT-KING OF MAC. – D.		336
ALEXANDER I.-ROMAN PONTIFF-DIED,		119
ALEXANDER II. " "	"	DIED, 1073
ALEXANDER III. " "	"	DIED, 1181
ALEXANDER IV.-ROMAN PONTIFF – D.		1261
ALEXANDER V. " "	"	D. 1410
ALEXANDER VI. " "	"	D. 1503
ALEXANDER VII. " "	"	D. 1667
ALEXANDER VIII. " "	"	D. 1691
ALEXANDER I.-RUS. EMPEROR – D.		1777
ALEXANDER II. "		1818
ALEXANDER, WM.-AMER. REVGEN. – D.		1726
ALEXIS, MINHA-CZAR OF RUSSIA – D.		1630
ALFIERA, VITTORIO-ITAL. POET – D.		1803
ALFONSO I.-KING OF PORTUGAL – D.		1034
ALFONSO II. " "	"	1185
ALFONSO III. " "	"	1210
ALFONSO IV. " "	"	1291
ALFONSO V. " "	"	1422
ALFONSO VI. " "	"	1643
ALFONSO XII. KING OF SPAIN		1857
ALFRED THE GREAT-KING OF ENG. – D.		901
ALGARDI, ALESSANDRO-ITAL. SCULPTOR – D.		1600
ALGER, W.R.-AMER. AUTHOR – D.		1823
ALIBERT, JEAN-FR. PHYSICIAN – D.		1716
ALISON, SIR ARCH.-ENG. HISTORIAN – D.		1792
ALLAN, DAVID-SCOT. PAINTER – D.		1744
ALLAN, JOHN-REVOLUTY PATRIOT – D.		1746
ALLEGRI, GREGORIO-ITAL. MUSICIAN – D.		1580
ALLEN, CHAS.-AMER. CHF JUSTICE – D.		1797
ALLEN, ETHAN-REVOLUTIONARY OFFICER – D.		1737
ALLEN, HENRY W.-AMER. GENERAL – D.		1820
ALLEN, JOHN-AMER. REVOFFICER – D.		1772
ALLEN, JOS.W.-ENG. PAINTER – D.		1803
ALLEN, PAUL-AMER. WRITER – D.		1775
ALLEN, WM.-ENG. CHEMIST – D.		1770
ALLEN, W.H.-AMER. MAL. OFFICER – D.		1864
ALLIBONE, S.A.-AMER. AUTHOR – D.		1816
ALLISON, W.B.-AMER. STATESMAN – D.		1829
ALLORI, ALESSANDRO-ITAL. PAINTER – D.		1535
ALLSTON, WASHN-AMER. PAINTER – D.		1779
ALMA-TADEMA, L.-BELGIAN PAINTER – D.		1836
ALMY, JOHN-AMER. COMMODORE – D.		1814
AMADEUS-KING OF SPAIN – D.		1845
AMALIE, MARIE-GER. DRAMATIST – D.		1794
AMBROSE, ST.-FATHER OF LAT. CH. – D.		340
AMES, FISHER-AMER. STATESMAN – D.		1758
AMMERST, JEFFREY-BRIT. GENERAL – D.		1717
AMICI, GIOVANNI-ITAL. ASTRONOMER – D.		1784
AMPERE, ANDRE – FR. PHILOSOPHER – D.		1775
AMSLER, SAML.-GER. ENGRAVER – D.		1791
ANAC REON-GREEK POET – B.C.		550
ANASTASIUS I.-ROMAN PONTIFF – D.		498
ANASTASIUS II. " "	"	D. 496
ANASTASIUS III. " "	"	D. 901
ANASTASIUS IV. " "	"	D. 1154
ANAXARORAS - GREEK PHILOS. – B.C.		500
ANAXIMANDER " "	"	B.C. 610
ANCELOT, JAC.-FR. POET – D.		1794
ANCILLON, JOHANN-GER. HISTN – D.		1766
ANDERSON, JAMES-BAN. WRITER – D.		1805
ANDERSON, MARY-AMER. ACTRESS – D.		1859
ANDERSON, ROBT.-AMER. SOLDIER – D.		1805
ANDRASSY, JULIAN-HUNG. STSMAN – D.		1823
ANDRE, JOHN-BRITISH OFFICER – D.		1751
ANDRIANA, ANDREA-ITAL. PAINTER – D.		1540
ANDREW, J.A.-AMER. STATESMAN – D.		1818
ANDROS, SIR EDMUND-COLON'L GOVR – D.		1637
ANGELI FILLIPPO-ITAL. PAINTER – D.		1600
ANGELICO, FRA-ITAL. PAINTER – D.		1387
ANGELL, JOS.K.-AMER. LEGAL WRIT. – D.		1800
ANNE OF AUSTRIA-QUEEN OF FR'NCE – D.		1601
ANNE-QUEEN OF ENGLAND – D.		1664
ANNE OF CLEVES-4TH WIFE HEN. VIII – D.		1515
ANNE BOLEYN-2ND " " " – D.		1507
ANSON, GEO. - ENG. ADMIRAL – D.		1697
ANTHON, CHAS.-AMER. SCHOLAR – D.		1797
ANTHONY, ST.-EGYP. FOUN'R MONKS – D.		251
ANTHON, HENRY-U.S. SENATOR – D.		1815
ANTIGONUS-GEN. OF ALEX. THE GR. – B.C.		382
ANTIPATER-MACEDON GENERAL – B.C.		397
ANTIPHON-GRECIAN ORATOR – B.C.		480
ANTISTHENES-GRECIAN PHILOS. – B.C.		422
ANTOINETTE, MARIE-FR. QUEEN – D.		1755
ANTONELLI, GIACOMO - ITAL. STATESMAN – D.		1806
ANTONY, MARK-ROMAN GENERAL – B.C.		83
ANVILLE, JEAN-FR. GEOGRAPHER		1697
APPLEGARTH, ROBT.-ENG. HORTICULTURIST		1791
APPLETON, JOHN-AMER. STATESMAN – D.		1815
APPLETON, JNO.-AMER. DIPLOMATIST – D.		1792
APULIUS, LUCIUS-PLATONIC PHILOS. – D.		130
AQUINAS, ST. THOS.-ITAL. PHILOS. – D.		1227
ARABI PASHA-EGYP. REVOLUTIONIST – D.		1834
ARAGO, DOMINIQUE-FR. STATESMAN – D.		1786
ARBUTHNOT, JOHN-SCOT. PHYSICIAN – D.		1675
ARCHIMEDES-GREEK MATHEMATICIAN – B.C.		287
ARETINO, GUIDO-ITAL. INVENTOR – D.		991
ARGYLE, A.C.-SCOT. COVENANTER – D.		1598
ARGYLL, G.D.C.-ENG. STATESMAN – D.		1823
ARIOSTO, LUDOVICO-ITAL. POET – D.		1474
ARISTIDES-GREEK STATESMAN – DIED, B.C.		468
ARISTOPHANES-GREEK POET – D.		B.C. 444
ARISTOTLE-GREEK PHILOSOPHER – B.C.		384
ARIUS-PATRIARCH OF ALEXANDRIA – D.		255
ARKWRIGHT, SIR RICH-ENG. INVENTOR – D.		1732
ARMINIUS - GER. HERO – D.C.		19
ARMINIUS, JACOBUS - DUTCH THEOL. – D.		1560
ARMITAGE, EDWD-ENG. PAINTER – D.		1817
ARMSTRONG, JOHN-SCOT. POET – D.		1709
ARMSTRONG, WM G-ENG. INVENTOR – D.		1810
ARNAUD, HENRI-WALDENSE LEADER – D.		1641
ARNDT, E.M.-GER. POET – D.		1769
ARNEUNG, J.L.W.-GER. DIPLOMAT – D.		1581
ARNIM, H.C.E.-PRUS. DIPLOMATIST – D.		1804
ARNOLD, BENEDICT-AMER. TRAITOR – D.		1746
ARNOLD OF BRESCIA-ITAL. REFORMER – D.		1155
ARNOLD, EDWIN-ENG. POET – D.		1832
ARNOLD, MATTHEW-ENG. AUTHOR – D.		1822
ARNOLD, THOS-ENG. HISTORIAN – D.		1795
ARNOLD, WINKELRIED-SWISS PATRIOT – D.		1386
ARTAXERXES I.-KING OF PERSIA – DIED, B.C.		425
ARTAXERXES II. " "	"	D.B.C. 362
ARTAXERXES III. " "	"	D.B.C. 338
ARTEMISIA-FL. – 480 B.C. - QUEEN OF HALICARNASSUS		
ARTEMISIA-FL. 350 B.C. - CONSORT OF MAUSOLUS		
ARTHUR, CHESTER A.-21ST PRES. U.S. – D.		1831
ARTHUR, TIMOTHY S.-AMER. AUTHOR – D.		1809
ASCHAM, ROGER-ENG. SCHOLAR – D.		1515
ASHBURTON, ALEX. B.-ENG. DIPLOMATIST – D.		1774
ASHBURTON, WM. BINGHAM BARING, 2D BARON – D.		1864
ASTOR, JOHN JACOB-AMER. MERCHANT – D.		1763
ATHANASIUS-GR. FATHER OF CHURCH – D.		296
ATHELSTAN-KING OF ENGLAND – D.		895
ATTERBURY, FRANCIS-ENG. PRELATE – D.		1662
ATTILA-KING OF THE HUNS – DIED – D.		453
AUBER, DANIEL F.E.-FR. MUS. COMPOS. – D.		1184
AUDUBON, JNO. L.-AMER. ORNITHOLOGIST – D.		1780
AUERBACH, BERTHOLD-GER. AUTHOR – D.		1812
AUGEREAU, P.F.C.-FR. GENERAL – D.		1757
AUGUSTINE, ST.-LAT. FATH. OF THE CH.		354
AUGUSTUS I.-KING OF POLAND – D.		1610
AUGUSTUS CAESAR-1ST ROM. EMP. B.C.		63
AURELIANUS-ROM. EMPEROR – D.		212
AURELIUS, MARCUS-ROM. EMPEROR – D.		121
AUSONIUS - LATIN POET – D.		310
AUSTEN, JANE-ENGLISH AUTHOR – D.		1775
AYTOUN, WM.E.-SCOTTISH POET – D.		1813
BABER, M.-FROM MOGUL EMP. IN INDIA – D.		1483
BACCIO DELLA PORTA-ITAL. PAINTER – D.		1469
BACH, JOHAN S.-GER. MUS. COMPOSER – D.		1685
BACHE, ALEX. D.-AMER. PHILOSOPHER – D.		1806
BACK, GEORGE-ENG. ARCTIC NAVIGAT'R – D.		1796
BACON, FRANCIS-LORD VIS. ENG. PHILOS. – D.		1561
BACON, NATHAN.-VIRGINIA PATRIOT – D.		1630
BACON, ROGER-ENG. PHILOSOPHER – D.		1214
BAFFIN, WM.-ENG. NAVIGATOR – D.		1584
BAILEY, JACOB W.-AMER. NATURALIST – D.		1811
BAILLIE, JOANNA - SCOT. POETESS – D.		1762
BAILLIE, MATT.-SCOT. PHYSICIAN – D.		1761
BAILLY, JEAN S.-FR. ASTRONOMER – D.		1736
BAILY, EDW. H.-ENG. SCULPTOR – D.		1788
BAILY, FRANCIS-ENG. ASTRONOMER – D.		1844
BAIRD, DAVID-SCOT. GENERAL – D.		1761
BAIRD, SPENCER-AMER. NATURALIST – D.		1823
BAJAZET I.-SULTON OF OTTOMANS – D.		1394
BAKER, SAMUEL W.-ENG. AFR. EXPLOR. – D.		1821
BALBOA, VASCO-SPAN. DISCOVERER – D.		1475
BALDWIN I.-KING OF JERUSALEM – D.		1100
BALFE, MICHAEL W.-IRISH COMPOSER – D.		1808
BALFOUR, A.J.-ENG. STATESMAN – D.		1848
BALLOU, HOSEA-AMER. THEOLOGIAN – D.		1771

WHO *refers to the name of the individual; as,* Napoleon Bonaparte.
WHAT *refers to that for which he is chiefly remembered; as,* Blaine was a state's'n.
WHERE *refers to the country in which he lived; as,* Bell lived in Scotland.
WHEN *refers to the date of his birth; as,* Bismarck was born in 1815.

NAME.	OCCUPATION.	BORN.
BALMES, JAIME - SPAN. PHILOSOPHER		1171
BALZAC, HONORE - FR. NOVELIST		1799
BANCROFT, GEO. - AMER. HISTORIAN		1800
BAR SELLIO, MATTEO - ITAL. NOVELIST		1480
BARLER, JOHAN - SWEDISH GENERAL		1598
BARNIM, JOHN - IRISH NOVELIST		1796
BANKS, NATHAN. P. - AMER. GENERAL		1816
BANKS, SIR JOS. - ENG. TRAVELER		1743
BANKS, THOS. - ENG. SCULPTOR		1735
BANNEKER, BENJ. - AMER. NEG. MATH.		1731
BARBOUR, JOHN - SCOTTISH POET		1320
BARCLAY, ROBT. - SCOT. QUAK. AUTHOR		1648
BARNHAM, RICHARD H. - ENG. HUMORIST		1788
BAREBONE, PRAISE GOD - ENG. FANATIC - D.		1681
BARLOW, JOEL - AMER. PATRIOT		1755
BARNES, ALBERT - AMER. THEOLOGIAN		1798
BARNUM, P. T. - AMER. SHOWMAN		1810
BARRAS, PAUL - FR. STATESMAN		1755
BARRET, LAWRENCE - AMER. ACTOR		1838
BARRY, JAMES - IRISH PAINTER		1741
BARRY CORNWALL - ENG. POET		1790
BARTOLINI, LORENZO - ITAL. SCULPTOR		1777

SALMON P. CHASE.

BARTOLOMMEO, FRA. - ITAL. PAINTER		1469
BARTON, BERNARD - ENG. QUAK. POET		1784
BARTRAM, JOHN - AMER. BOTANIST		1701
BARTSCH, JOHANN - GER. ENGRAVER		1757
BASSAND, HUGUES - FR. STATESMAN		1763
BAUNE, JEAN - DOMINE - FR. NOVELIST		1828
BAXTER, RICHARD - ENG. MINISTER		1615
BAYARD, PIERRE - FR. WARRIOR		1475
BAYER, JOHANN - GER. ASTRONOMER		1572
BAYLE, PIERRE - FR. PHILOSOPHER		1647
BAZAINE, FRANCOIS - FR. GENERAL		1811
BEACONSFIELD, BENJ. - ENG. NOVELIST		1804
BEATON, DAVID - SCOT. CARDINAL		1494
BEATTIE, JAS. - SCOT. POET		1735
BEAUHARN AISE, VIS. - FR. GENERAL		1781
BEAUMARCHAIS, P. - FR. DRAMATIST		1732
BEAUMONT, FRANCIS - ENG. DRAMATIST		1586
BEAUREGARD, F. - AMER. GOV. GEN.		1816
BECKET, THOS. - A. - ENG. ARCHBISHOP		1117
BEDE, THE VENERABLE - ENG. MONK		673
BEECHER, H. W. - AMER. DIVINE		1813
BEECHER, LYMAN - AMER. DIVINE		1775
BETHOVEN, LUDWIG - GER. MUS. COMPOS.		1770
EHRING, VITUS - DANISH NAVIGATOR		1680
BELISSARIUS - BYZANTINE GENERAL		505
BELL, SIR CHAS. - SCOT. PHYSIOLOGIST		1774



CICERO

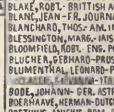
BELLINI, VINCENZO - ITAL. COMPOSER		1802
BELVEDERE, ANDREA - ITAL. PAINTER		164
BENDEMANN, EDW. - GER. PAINTER		1811
BENTOEK, LUDWIG - HUNGARIAN GEN.		18
BENEDICT, ST. - FOUND. MONACHISM		480
BENEDICT I. - ADMAN PONTIF - OIEB, ST.		
BENEDICT II. " " "		684
BENEDICT III. " " "		858
BENEDICT IV. " " "		903
BENEDICT V. " " "		964
BENEDICT VI. " " "		973
BENEDICT VII. " " "		983
BENEDICT VIII. " " "		102
BENEDICT IX. " " "		1032
BENEDICT X. " " "		1058
BENEDICT XI. " " "		1334
BENEDICT XII. " " "		1342
BENEDICT XIII. " " "		1730
BENEDICT XIV. " " "		1758
BENEDICT, SIR JULIUS - GER. MUSICIAN		1804
BENJAMIN, PARK - AMER. JOURNALIST		1809
BENNETT, JAS. GORD. - AMER. JOURNALIST		1795
BENTHAM, JEREMY - ENG. JURIST		1748

HENRY CLAY.

BENTLEY, RICHARD - ENG. PHILOSOPHER		662
BENTON, THOS. H. - AMER. STATESMAN		1782
BERANGER, PIERRE - FR. LYRIC POET		1780
BENOT, CHAS. A. - BELGIAN VIOLINIST		1802
BERKELEY, GEO. - IRISH PHILOSOPHER		1684
BERLIOZ, LOUIS H. - FR. COMPOSER		1803
BERNARD, ST. - FR. ECCLESIASTIC		1091
BERNARD, SIMON - FR. GENERAL		1779
BERNHARDT, SARA - FR. TRAGEDIAN		1859
BERT, PAUL - FR. PHYSICIAN		1833
BERTHOLLET, CLAUDE - FR. CHEMIST		1748
BERWICK, JAS. - FR. MARSHAL		1660
BESSEL, FRIEDRICH - PRUS. ASTRONM.		1784
BESSEMER, HENRY - ENG. INVENTOR		1813
BEUST, FRIEDRICH - GER. STATESMAN		1809
BIDDLE, JOHN - ENG. THEOLOGIAN		1615
BIERSTADT, ALBERT - AMER. PAINTER		1829
BINNEY, AMOS - AMER. NATURALIST		1803
BIRD, ROBT. M. - AMER. AUTHOR		1803
BISMARCK, PRINCE VON - GER. STATSM		1815
BLACK HAWK - AMER. INDIAN CHIEF		1767

GROVER CLEVELAND.

BLACKBURN, JOS. - AM. STATESMAN		1838
BLACKSTONE, SIR WM. - ENG. JURIST		172
BLACKWOOD, WM. - SCOT. PUBLISHER		1776
BLAINE, JAS. G. - AM. STATESMAN		1830
BLAIR, HUGH - SCOT. RHETORICIAN		1718
BLAKE, ROBT. - BRITISH ADMIRAL		1598
BLANC, JEAN - FR. JOURNALIST		1813
BLANCHARD, THOS. - AM. INVENTOR		1788
BLESSINGTON, MARG. - IRISH COUNTESS		1789
BLOOMFIELD, ROBT. - ENG. POET		1766
BLUCHER, GEBHARD - PRUS. FM. MAR.		1742
BLUMENTHAL, LEONARD - PRUS. GEN.		1810
BOADICEA, CALEDONIAN - ITAL.		61
BODE, JOHANN - GER. ASTRONOMER		1747
BOERHAAVE, HERMAN - DUTCH PHILOS.		1668
BOETHIUS, ANICIUS - ROM. PHILOS.		470
BOGARDUS, JAS. - AM. INVENTOR		1800
BOHN, H. G. - ENG. PUBLISHER		1800
BOLEYN, ANNE - 2ND WIFE HENRY VIII.		1507



CHRISTOPHER COLUMBUS.

NAME.	OCCUPATION.	BORN.
BOLINGBROKE, HENRY - ENG. STATESMAN		1678
BOLIVAR, SIMON - S. AM. PATRIOT		1783
BONAPARTE, CHAS. - FR. EMPEROR		1809
BONAPARTE, JEROME - KING OF WESTPHALIA		1784
BONAPARTE, JOS. - KING OF SPAIN		1768
BONAPARTE, LOUIS - KING OF HOLLAND		1778
BONAPARTE, LUCIEN - PRINCE OF CANINO		1775
BONAPARTE, NAPOLEON - FR. EMPEROR		1769
BONHEUR, ROSALIE - FR. PAINTER		1822
BONIFACE, ST. - APOSTLE OF GERMANY		680
BONIFACE I. - ROMAN PONTIFF - DIED,		422
BONIFACE II. " " "		530
BONIFACE III. " " "		607
BONIFACE IV. " " "		615
BONIFACE V. " " "		625
BONIFACE VI. " " "		896
BONIFACE VII. " " "		985
BONIFACE VIII. " " "		1303
BONIFACE IX. " " "		1404
BONNEVILLE, B. E. - AM. TRAVELER		1795
BOONE, DANIEL - AM. PIONEER		1735
BOOTH, BARTON - ENG. TRAGEDIAN		1681
BOOTH, EDW. - AMER. TRAGEDIAN		1833

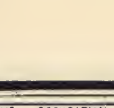
COPERNICUS.

BOOTH, JUNIUS B. - ENG. TRAGEDIAN		1796
BORDEN, SIMEON - AM. ENGINEER		1798
BORGIA, CESARE - ITAL. CARDINAL		1475
BORROMEO, CARLO - ITAL. CARDINAL		1538
BORROW, GEO. - ENG. AUTHOR		1803
BOSCAWEN, EDW. - ENG. ADMIRAL		1711
BOSSUET, JACQUES - FR. PRELATE		1627
BOSWELL, JAS. - SCOT. LAWYER		1740
BOTHWELL, JAS. H. - SCOT. CONSPIRATOR		1526
BOTTA, CARLO - ITAL. HISTORIAN		1766
BOTTCHER, JOHANN - GER. INVENTOR		1682
BOUCICAULT, DION - DRAMATIST		1822
BOUGAINVILLE, LOUIS - FR. NAVIGATOR		1729
BOUGUER, PIERRE - FR. PHYSICIST		1698
BOUILLON, GODFREY - LEADER 1ST CRUSADE		1060
BOUTON, MATT. - ENG. INVENTOR		1728
BOURBAKI, CHAS. - FR. GENERAL		1816
BOURBON, CHAS. - FR. GENERAL		1490
BOURBON, SEBASTIEN - FR. PAINTER		1616
BOURNE, HUGH - ENG. FOUNDER PRIM. METHISM		1777
BOWDITCH, NATHANIEL - AM. MATHEMATICIAN		1773
BOWDOIN, JAS. - AM. STATESMAN		1727

COUNT VON BISMARCK.

BOWLES, WM. - ENG. POET		1762
BOYLE, ROBT. - IRISH PHILANTHROPIST		1626
BOZZARIS, MARCO - GREEK PATRIOT		1790
BRADDOCK, EDW. - BRIT. GENERAL		1715
BRADDON, MARY E. - ENG. NOVELIST		1837
BRADFORD, WILLIAM - ENGLISH COL.		1590
BRADLEY, JAS. - ENG. ASTRONOMER		1692
BRADY, JAS. - AM. LAWYER		1815
BRAGG, BRAXTON - CONFED. GENERAL		1815
BRAHE, TYCHO - DANISH ASTRONOMER		1546
BRAINARD, DAVID - AM. MISSIONARY		1718
BRANDE, WM. T. - ENG. CHEMIST		1788
BRECKENRIDGE, J. C. - CONFED. GENERAL		1821
BREMER, FREDRIKA - SWE. NOVELIST		1802
BRENTANO, CLEMENS - GER. POET		1771
BRENGHEL, JAN. - FLEMISH PAINTER		156
BREWSTER, DAVID - ENG. PHYSICIST		178
BRIAN, BORU - KING OF IRELAND		921

NAME.	OCCUPATION.	BORN.

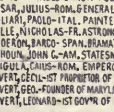


JEFFERSON DAVIS.

BRIGHT, JOHN - ENG. STATESMAN		1811
BRISSOT, JEAN P. - FR. GIRONDIST		1754
BROGLIE, CHAS. - FR. STATESMAN		1821
BRONTE, CHARLOTTE - ENG. NOVELIST		1816
BROOKS, JAS. - AM. JOURNALIST		1811
BROUGHAM, HENRY LORD - BRIT. AUTHOR		1779
BROWN, CHAS. - AM. NOVELIST		1771
BROWN, JOHN - AM. ABOLITIONIST		1800
BROWN, THOS. - SCOT. METAPHYSICIAN		1778
BROWNE, CHAS. F. - AM. HUMORIST		1833
BROWNE, SIR THOS. - ENG. PHYSICIAN		1605
BROWNING, ELIZ. - ENG. POETESS		1809
BROWNING, ROBT. - ENG. POET		1812
BRUCE, JAS. - SCOT. TRAVELER		1730
BRUCE, ROBT. - KING OF SCOTLAND		1274
BRUTUS, LUCIUS - ROM. PATRIOT - EL.		500
BRUTUS, MARCUS - ROM. GENERAL - B. C.		80
BRYANT, WM. CUL - AM. POET		1794
BUCHANAN, GEO. - SCOT. HISTORIAN		1506
BUCHANAN, JAS. - 15TH PRES. U.S.		1791
BUCKINGHAM, DUKE OF - ENG. STATSMN		1592
BUCKLE, HENRY T. - ENG. WRITER		1822
BUDDHA, GAUTAMA - HINDOO REFORMER		[illegible]
BUFFALO BILL (WM. CODY) - AMS. WILD WEST SHOW		1845
BUFFON, GEO. L. - FR. NATURALIST		1707
BULWER-LYTTON, LORD - ENG. NOVELIST		1805
BULWER LYTTON, EDW. - ENG. POET		1831
BULWER, HENRY - ENG. AUTHOR		1804
BUNSEN, CHR. - GER. DIPLOMATIST		1791
BUNYAN, JOHN - ENG. AUTHOR		1628
BURCKHAADT, JOHANN - SWISS TRAVELER		1784

THOMAS DE QUINCY.

BURGOYNE, JOHN - ENG. GENERAL		1730
BURKE, EDMUND - ENG. STATESMAN		1730
BURLEIGH, WM. C. - ENG. STATESMAN		1520
BURNET, GILBERT - ORIT. HISTORIAN		1643
BURNS, ROBT. - SCOT. LYRIC POET		1759
BURNSIDE, AMBROSE - AM. GENERAL		1824
BURR, AARON - AM. STATESMAN		1756
BURRITT, ELIHU - AM. JOURNALIST		1810
BURTON, RICHARD - IRISH TRAVELER		1821
BURTON, ROBT. - ENG. AUTHOR		1576
BUTLER, DENIS F. - AM. LAWYER		1818
BUTLER, SAMUEL - ENG. POET		1612
BYRON, LORD - ENG. POET		1788
CABOT, JOHN - ENG. NAVIGATOR		1498
CABOT, SEBASTIAN - ENG. NAVIGATOR		1477
CAEDMON - ANGLO-SAXON POET		680
CAESAR, JULIUS - ROM. GENERAL		100
CAGLIARI, PAOLO - ITAL. PAINTER		1530
CAILLE, NICHOLAS - FR. ASTRONOMER		1713
CALDERON, BARCO - SPAN. DRAMATIST		1600
CALHOUN, JOHN C. - AM. STATESMAN		1783
CALIGULA, CAIUS - ROM. EMPEROR		12
CALVERT, CECIL - 1ST PROPRIETOR OF MD.		1676
CALVERT, GEO. - FOUNDER OF MARYLAND		1582
CALVERT, LEONARD - 1ST GOVR OF MD.		1606



CHARLES DICKENS.

NAME.	OCCUPATION.	BORN.
CALVIN, JOHN - FR. THEOLOGIAN		1509
CAMACENES, JEAN - FR. STATESMAN		1757
CAMBYSES - KING OF PERSIA - DIED B.C.		522
CAMERON, RICHARD - SCOT. COVENANTER		1680
CAMERON, SIMON - AM. POLITICIAN		1799
CAMILLUS, MARCUS - ROM. GENERAL - B.C.		364
CAMOENS, LUIS - PORTUGUESE POET		1511
CAMPBELL, ALEX. - RELIGIOUS REFORMER		1788
CAMPBELL, SIR COLIN - BRIT. GENERAL		1792
CAMPBELL, THOS. - SCOT. POET		1777
CANBY, EDWARD - AM. GENERAL		1819
CANISIUS, PETRUS - DUTCH THEOLOGIAN		1521
CANNING, GEO. - ENG. STATESMAN		1770
CANOVA, ANTONIO - ITAL. SCULPTOR		1757
CANROBERT, FRANCOIS - FR. MARSHAL		1809
CANUTE II. - KING OF DENMARK		990
CAPET, HUGH - KING OF FRANCE		940
CAREY, HENRY C. - AM. POLIT. ECONOMIST		1793
CARLETON, WM. - IRISH NOVELIST		1798
CARLISLE, JAS. H. - AM. STATESMAN		1829
CARLOS, DON - DUKE OF MADRID		1848
CARLYLE, THOS. - SCOT. AUTHOR		1795
CARNOT, LAZAR - FR. STATESMAN		1753
CARROLL, CHAS. - AM. PATRIOT		1737

JOHN DRYDEN.

CARTIER, JAQUES - FR. NAVIGATOR		1494
CARTWRIGHT, EDMUND - ENG. INVENTOR		1743
CARY, ALICE - AM. POET		1820
CARY, PHOEBE - AM. POET		1824
CASIMIR, KING OF POLAND		1058
CASS, LEWIS - AM. STATESMAN		1782
CATHERINE, ST. - ITALIAN NUN		1347
CATHERINE I. - EMPRESS OF RUSSIA		1682
CATHERINE OF ARAGON - WIFE OF KEN. VIII		1486
CATHERINE DE MEDICI - WIFE OF H. II. OF FR.		1519
CATHERINE OF VALOIS - Q. OF ENG.		1401
CATILINE, LUCIUS S. - ROM. CONSPIRATOR		B.C. 108
CATO, DIONYSIUS - LATIN POET - FL. 3d CENTURY		
CATO, MARCUS P. - ROM. STATESMAN - B.C.		234
CATULLUS, CAIUS V. - LATIN POET - B.C.		87
CAVAIGNAC, LOUIS - FR. GENERAL		1802
CAVENDISH, HENRY - ENG. PHILOSOPHER		1731
CAVOUR, CAMILLO - ITAL. STATESMAN		1818
CAXTON, WM. - ENG. PRINTER		1412
CECILIA, ST. - ROM. PATRONESS OF MUSIC - P.		2D C.
CELLINI, BENVENUTO - ITAL. ARTIST		1500
CENCI, BEATRICE - FAMOUS ROM. LADY		1583
CERVANTES, SAAVEDRA - SPAN. NOVELIST		1547
CHALMERS, THOS. - SCOT. DIVINE		1780
CHAMBERLAIN, JOS. - ENG. STATESMAN		1836
CHAMBERS, WM. - SCOT. PUBLISHER		1800
CHAMPLAIN, SAML. - FL. NAVIGATOR		1570

QUEEN ELIZABETH.

CHANCARNIER, N. A. L. - FR. GENERAL		1793
CHANNING, WM. E. - AM. DIVINE		1780
CHANTRE Y SIR FRANCIS - ENG. SCULPTOR		1782
CHAPIN, EDW. H. - AM. DIVINE		1814
CHARLEMAGNE - EMPEROR		742
CHARLES II. - " "		823
CHARLES III. - " "		832
CHARLES IV. - " "		1316
CHARLES V. - " "		1500
CHARLES VI. - " "		1685
CHARLES VII. - " "		1697
CHARLES II. - KING OF FRANCE		823
CHARLES IV. - " "		1294
CHARLES V. - " "		1337
CHARLES VI. - " "		1368
CHARLES VII. - " "		1403
CHARLES IX. - " "		1550
CHARLES X. - " "		1757
CHARLES I. - KING OF ENGLAND		1600
CHARLES II. - " "		1630
CHARLES I. - KING OF SPAIN		1500
CHARLES II. - " "		1661

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NAME	OCCUPATION	BORN
MILLARD FILMORE.		
CHARLES III.-KING OF SPAIN		1716
CHARLES IV.	" "	1748
CHARLES IX.-KING OF SWEDEN		1550
CHARLES X.	" "	1622
CHARLES XII.	" "	1682
CHARLES XIII.	" "	1748
CHARLES XIV.	" "	1764
CHARLES XV.	" "	1828
CHARLES EDW. STUART-ENG. PRINCE		1720
CHARLES THE BOLD-DUKE OF BURGUNDY		1433
CHARLES MARTEL-KING OF THE FRANKS		694
CHARRON, PIERRE-FR. MORALIST		1531
CHARTIER, ALAIN-FR. POET		1385
CHASE, SALMON P.-AM. STATESMAN		1808
CHATEAUBRIAND, F.R.-FR. AUTHOR		1768
CHATHAM, WM. PITT-ENG. STATESMAN		1708
CHATTERTON, THOS.-ENG. POET		1752
CHAUCER, GEOFFREY-ENG. POET		1328
CHEEVER, GEO. B.-AM. DIVINE		1807
CHENIER, MARIE M.J.-FR. POET		1762
CHERUBINI, MARIA-ITAL. COMPOSER		1760
CHESTERFIELD, EARL OF-ENG. ORATOR		1694
CHEVALIER, MICHEL-FR. POLIT. ECONOMIST		1806
CHILLINGWORTH, WM.-ENG. PHILANTHROPIST		1602
CHOATE, RUFUS-AM. LAWYER		1799
CHOISEUL, ETIENNE-FR. STATESMAN		1719
CHRISTIAN I.-KING OF DENMARK		1423
CHRISTIAN II.	" "	1481
CHRISTIAN III.	" "	1503
CHRISTIAN IV.	" "	1577
CHRISTIAN V.	" "	1646

NAME	OCCUPATION	BORN
BENJAMIN FRANKLIN.		
CHRISTIAN VI.-KING OF DENMARK		1699
CHRISTIAN VII.	" "	1749
CHRISTIAN VII.	" "	1786
CHRISTIAN IX.	" "	1818
CHRISTINA-QUEEN OF SWEDEN		1626
CHRYSIPPUS-GR. STOIC PHILOS. B.C.		280
CHRYSOSTOM, ST.-GR. FATH. OF CH.		347
CHURCH, FRED. E.-AM. ARTIST		1828
CHURCHILL, CHAS.-ENG. POET		1731
CHURCHILL, RANDOLPH-ENG. STSMN.		1849
CIBBER, COLLEY-ENG. DRAMATIST		1671
CICERO, MARCUS T.-ROM. ORATOR-B.C.		106
CIMABUE, GIOVANNI-ITAL. PAINTER		1240
CINCINNATUS, LUCIUS Q.-ROM. PATRIOT-B.C.		520
CINQ-MARS, HENRI-FR. NOBLE		1620
CLARENDON, EDW. H.-ENG. STSMAN		1608
CLARKE, ADAM-IRISH THEOLOGIAN		1760
CLAUDE LORRAINE-FR. PAINTER		1600
CLAUDIUS-ROM. EMPEROR		B.C. 10
CLAUDIUS, MARCUS-ROM. EMP.		214
CLAY, HENRY-AM. STATESMAN		1777
CLEMENS, SAINT, I.-ROMANUS		1635
CLEMENT I.-ROM. PONTIFF		30
CLEMENT V.	" "	1264
CLEMENT VII.	" "	1478

NAME	OCCUPATION	BORN
FREDERICK THE GREAT.		
CLEMENT VII.-ROMAN PONTIFF		1538
CLEMENT XI.	" "	1649
CLEMENT XIV.	" "	1705
CLEMENTI, MUZIO-ITAL. PIANIST		1752
CLEON-ATHENIAN GENERAL-D. B.C.		422
CLEOPATRA-QUEEN OF EGYPT		B.C. 69
CLEVELAND, GROVER-PRES. U.S.		1837
CLINTON, DE WITT-AM. STATESMAN		1769
CLINTON, SIR HENRY-ENG. GENERAL		1738
CLIVE, ROBT.-ENG. GENERAL		1725
CLOOTZ, JEAN-PRUS. BARON		1753
CLOUGH, ARTHUR H.-ENG. POET		1820
CLOVIS-KING OF THE FRANKS		465
COBBETT, WM.-ENG. POLIT. WRITER		1762
COBDEN, RICHARD-ENG. STATESMAN		1804
COKE, SIR EDW.-ENG. JURIST		1552
COLBERT, JEAN B.-FR. STATESMAN		1619
COLBURN, WARREN-AM. MATHEMATIM.		1793
COLE, THOS.-AM. PAINTER		1801

ROBERT FULTON.

COLENSO, J.W.-ENG. THEOLOGIAN		1814
COLERIDGE, SAM'L T.-ENG. POET		1772
COLFAX, SCHUYLER-AM. STATESMAN		1823
COLIGNY, GASPARD-FR. ADMIRAL		1517
COLLIER, JEREMY-ENG. THEOLOGIAN		1650
COLLINGWOOD, C.-ENG. ADMIRAL		1750
COLLINS, ANTHONY-ENG. AUTHOR		1676
COLLINS, WM.-ENG. POET		1720
COLLINS, WM. W.-ENG. NOVELIST		1824
COLMAN, GEO. (ELDER)-ENG. DRAMATIST		1733
COLMAN, GEO. (YOUNGER)-ENG. DRAMATIST		1762
COLT, SAMUEL-AM. INVENTOR		1814
COLUMBUS, CHRISTOPHER-DISCOV. OF AM.		1436
COMBE, GEO.-ENG. PHRENOLOGIST		1788
COMMODUS, ANTON.-ROM. EMPEROR		161
COMTE, AUGUSTE-FR. PHILOSOPHER		1798
CONDE, LOUIS II.-FR. GENERAL		1621
CONDILLAC, ETIENNE-FR. PHILOSOPH.		1715
CONDORCET, MARIE-FR. SAVANT		1743
CONFUCIUS-CHINESE PHILOSOPHER		B.C. 551
CONGREVE, WM.-ENG. DRAMATIST		1670
CONKLING, ROSCOE-AM. STATESMAN		1829
CONRAD I.-EMPEROR OF GERMANY		O. 918
CONRAD II.	" "	" 1039
CONRAD III.	" "	" 1093
CONRAD IV.	" "	" 1228
CONRAD V.	" "	" 1252

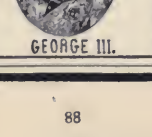
JAMES A. GARFIELD.

CONSTANTINE THE GREAT-ROM. EMPEROR		272
CONSTANTIUS I.-ROM. EMPEROR		250
CONTI, FRANCOIS-FR. GENERAL		1664
COON, ELIZA-ENG. POETESS		1817
COON, JAMES-ENG. NAVIGATOR		1728
COOPER, SIR ASTLEY-ENG. PHYSICIAN		1768
COOPER, J.F.-AM. NOVELIST		1789
COOPER, PETER-AM. PHILANTHROPIST		1791
COPERNICUS, NICHOLAS-GER. ASTRONOMER		1473
COPLEY, JOHN S.-AM. PAINTER		1737
CORDAY, CHARLOTTE-FR. HEROINE		1768
CORNELIUS, PETER-GER. PAINTER		1787
CORNELL, EZRA-AM. PHILANTHROPIST		1807
CORNWALL, BARRY-ENG. POET		1787
CORREGGIO, ANTONIO-ITAL. PAINTER		1494
CORTEZ, HERNANDO-CONQ. OF MEX.		1485
COTTON, JOHN-PURITAN MINISTER		1585
COUSIN, VICTOR-FR. PHILOSOPHER		1792
COWLEY, ABRAHAM-ENG. POET		1618
COWPER, WILLIAM-ENG. POET		1731

NAME	OCCUPATION	BORN
WILLIAM E. GLADSTONE.		
COX, S.S.-AM. STATESMAN		1824
COZZENS, FREDS.-AM. POET		1818
CRABB, GEO.-ENG. PHILOLOGIST		1778
CRABBE, GEO.-ENG. POET		1754
CRANMER, THOS.-ENG. REFORMER		1489
CRASSUS, MARCUS-ROM. TRIUMVIR	B.C.	108
CREASY, SIR EDW.-ENG. HISTORIAN		1812
CRICHTON, SCOT. PRODIGY		1560
CRISPIN, ST.- CHRISTIAN MARTYR	B.C.	287
CRITTENDEN, J.J.-AM. STATESMAN		1786
CROCKETT, DAVID-AM. BACKWOODSMAN		1786
CROESUS-KING OF LYDIA	B.C.	590
CROMWELL, OLIVER-ENG. GENERAL		1599
CRUDEN, ALEX.-SCOT. AUTHOR		1700
CRUISE, JOHN-ENG. JURIST		1732
CUDWORTH, RALPH-ENG. ANTIQUARIAN		1617
CURRAN, JOHN P.-IRISH ORATOR		1750
CURTIS, BENJ. R.-AM. JURIST		1809
CURTIS, GEO. W.-AM. AUTHOR		1824
CUSHING, CALEB-AM. LAWYER		1800
CUSHMAN, CHARLOTTE-AM. ACTRESS		1816
CUSTER, GEO. A.-AM. GENERAL		1839
CUVIER, GEO.-FR. NATURALIST		1769

OLIVER GOLDSMITH.

CYPRIAN, ST.-LATIN FATHER		200
CYRUS THE GREAT-KING OF PERSIA	B.C.	600
DAGUERRE, LOUIS-FR. ARTIST		1789
DAHLBERG, ERIC-SWED. GENERAL		1625
DAHLMAN, FRIEDR.-GER. HISTORIAN		1785
DALLAS, ALEX. J.-AM. STATESMAN		1759
DALLAS, GEO. M.-AM. STATESMAN		1792
DALTON, JOHN-ENG. CHEMIST		1766
DANA, CHAS. A.-AM. JOURNALIST		1819
DANA, FRANCIS-AM. LAWYER		1743
DANA, RICH. HEN.-AM. POET		1787
DANA, RICH. HEN.-AM. LAWYER		1815
DANA, WILLIAM A.-AM. LAWYER		1752
DANIEL-HEBREW PROPHET	B.C.	534
DANIELL, JOHN F.-ENG. SCIENTIST		1790
DANTE ALLIGHIERI-GREAT ITAL. POET		1265
DANTON, GEO. J.-FR. REVOLUTIONIST		1759
D'ARBLAY, MME.-ENG. NOVELIST		1752
DARIUS-KING OF PERSIA-DIED	B.C.	485
DARLEY, FELIX-AM. ARTIST		1822
DARLING, GRACE-ENG. HEROINE		1815
DARNLEY, HEN. S.-HUSB. OF MARY SCOTS		1541
DARWIN, CHAS. R.-ENG. NATURALIST		1809
DAVENANT, SIR WM.-ENG. DRAMATIST		1605



GEORGE III.

NAME	OCCUPATION	BORN
ULYSSES S. GRANT.		
DAVENPORT, EDW. L.-AM. ACTOR		1816
DAVID-KING OF ISRAEL	B.C.	1090
DAVIS, ST.-PATRON OF WALES		490
DAVIS, JACQUES L.-FR. PAINTER		1748
DAVID, PIERRE J.-FR. SCULPTOR		1789
DAVIES, CHAS.-AM. MATHEMATICIAN		1798
DAVIES, JOS. H.-AM. STATESMAN		1781
DAVIS, JEFFERSON-AM. STATESMAN		1808
DAVOUST, LOUIS N.-FR. MARSHAL		1770
DAVY, SIR HUMPHREY-ENG. CHEMIST		1778
DEARBORN, HENRY-AM. GENERAL		1751
DECATUR, STEPHEN-AM. NAVIGATOR		1779
DEFOE, DANIEL-ENG. NOVELIST		1661
DE KALB, JOHN-GER. GENERAL		1732
DELACROIX, FACE-FR. PAINTER		1799
DELAROCHE, PAUL-FR. PAINTER		1797
DELAWARE, LORD-GOV. OF VA.-DIED		1618
DEL SARTO, ANDREA-FR. PAINTER		1488
DEMETRIUS, PHALAREUS-PHILOSOPHER	B.C.	345
DEMETRIUS, POLIORCETES-KING GEN.	B.C.	335
DEMOCRITUS-GREEK PHILOSOPHER	B.C.	460
DEMOSTHENES-ATHENIAN ORATOR	B.C.	385
DE QUINCEY, THOS.-ENG. AUTHOR		1785
DERBY, EDWD.-ENG. STATESMAN		1799

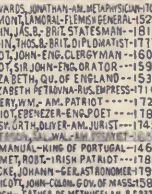
ULYSSES S. GRANT.

DESCARTES, RENE-FR. PHILOSOPHER		1596
DES MOULINS, CAMILLE-FR. JACOBIN		1762
DE SOTO, FERNANDO-SPAN. EXPLORER		1500
DE VIGNY, ALFRED-FR. NOVELIST		1799
DE WITT, JOHN-DUTCH STATESMAN		1625
DIAZ, PORFIRIO-PRES. OF MEXICO		1831
DIBDIN, CHAS.-ENG. DRAMATIST		1745
DICK, THOS.-SCOT. AUTHOR		1772
DICKENS, CHAS.-ENG. NOVELIST		1812
DICKINSON, ANNA-AM. LECTURER		1842
DIDEROT, DENIS-FR. PHILOSOPHER		1713
DILKE, SIR CHAS.-ENG. STATESMAN		1843
DIOCLETIAN-ROM. EMPEROR		245
DIOGENES-GR. CYNIC PHILOS.	B.C.	412
DIONYSIUS (ELDER)-TYRANT SYRACUSE	B.C.	430
DIONYSIUS (YOUNGER)	" "	B.C. 336
DISRAELI, BENJ.-ENG. AUTHOR		1805
DIXON, WM. H.-ENG. HISTORIAN		1821
DODGE, MARY A.-AM. AUTHORESS		1838
DOELLINGER, JOHN-GER. HISTORIAN		1799

HORACE GREELEY.

DOMINIC, ST.-SPAN. PREACHER		1170
DOMITIAN-ROM. EMPEROR		51
DONATI, GIOVANNI-ITAL. ASTRONOMER		1825
DONIZETTI, GAETANO-ITAL. COMPOSER		1798
DORE, PAUL G.-FR. ARTIST		1832
DOUGLAS, JAS.-SCOT. PATRIOT-D.		1330
DOUGLAS, STEPHEN A.-AM. STATSMN.		1817
DRACO-ATHENIAN LAWGIVER-FL. B.C.		624
DRAKE, SIR FRANCIS-ENG. NAVIGATOR		1540
DRAKE, JOS. R.-AM. POET		1795
DRAPER, JOHN W.-AM. SCIENTIST		1811
DRAY TON, MICHAEL-ENG. POET		1563
DRUSUS, CLAUD. N.-ROM. GEN.	B.C.	38
DRYDEN, JOHN-ENG. POET		1631
DUCANGE, CHAS.-FR. HISTORIAN		1610
DUDEVANT, MME.-FR. NOVELIST		1804
DUFFERIN, FRED.-ENG. STATESMAN		1826
DUMAS, ALEX.-FR. NOVELIST		1803
DUMOURIEZ, CHAS.-FR. GENERAL		1739
DUNCAN I.-SCOT. KING	DIED,	1040

NAME	OCCUPATION	BORN
ALEXANDER HAMILTON		
DUNDONALD, THOS.-BRIT. ADMIRAL		1775
DUNGLISON, ROB.-AM. PHYSICIAN		1798
DUNQIS, JEAN-FR. HERO		1402
DUNSTAN, ST.-ENG. PRELATE		925
DUQUESNE, ABRAHM-FR. NAV. COM.		1610
DURER, ALBRECHT-GER. ARTIST		1471
DWIGHT, TIMOTHY-AM. DIVINE		1752
EARLY, J.A.-CONFED. GENERAL		1818
EASTLAKE, SIR CHAS.-ENG. PAINTER		1793
EATON, AMOS-AM. NATURALIST		1776
EDES, BENJ.-AM. PATRIOT		1732
EDGEWORTH, MARIA-ENG. NOVELIST		1767
EDISON, THOS. A.-AM. INVENTOR		1847
EDMUND I., ANGLO-SAXON KING		922
EDMUND II.	" "	989
EDMUNDS, GEO. F.-AM. LAWYER		1828
EDWARD I.-ANGLO-SAXON KING		870
EDWARD II.	" "	960
EDWARD III.	" "	1004
EDWARD I.-KING OF ENGLAND		1239
EDWARD II.	" "	1284
EDWARD III.	" "	1312
EDWARD IV.	" "	1441
EDWARD V.	" "	1470
EDWARD VI.	" "	1537
EDWARD, PRINCE OF WALES		1330
EDWARD (CONFESSOR)-ENG. KING		1004

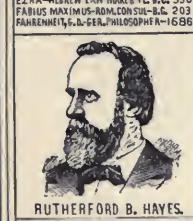


BENJAMIN HARRISON.

EDWARDS, JONATHAN-AM. METAPHYSICIAN		703
EGMONT, LAMORAL-FLEMISH GENERAL		1522
ELGIN, JAS. B.-BRIT. STATESMAN		1811
ELGIN, THOS. B.-BRIT. DIPLOMATIST		1777
ELIOT, JOHN-ENG. CLERGYMAN		1604
ELIOT, SIR JOHN-ENG. ORATOR		1591
ELIZABETH, QU. OF ENGLAND		1533
ELIZABETH PETROVNA-RUS. EMPRESS		710
ELLERY, WM.-AM. PATRIOT		1727
ELLIOT, EBENEZER-ENG. POET		1781
ELLSWORTH, OLIVER-AM. JURIST		1745
EMERSON, RALPH W.-AM. AUTHOR		1803
EMMANUEL-KING OF PORTUGAL		1469
EMMET, ROBT.-IRISH PATRIOT		1780
ENCKE, JOHANN-GER. ASTRONOMER		1791
ENDICOTT, JOHN-COLON. GOV. OF MASS.		1589
ENOCH-FATHER OF METHUSELAH	B.C.	3378
EPAMINONDAS-THEBAN ORATOR	B.C.	412
EPICTETUS-GR. STOIC PHILOS.		60
EPICURUS-GREEK PHILOSOPHER	B.C.	342
ERASMUS, DESIDERIUS-DUTCH SCHOLAR		1465
ERATOSTHENES-GR. ASTRONOMER	B.C.	276

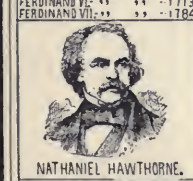
WILLIAM H. HARRISON.

NAME	OCCUPATION	BORN
ERICSSON, JOHN-SWED. INVENTOR		-1803
ERSKINE, THOS.- SCOT. LAWYER		-1750
ETELRER II.- ANGLO-SAXON KING		- 968
EUCLID OF ALEXANDRIA-GR. MATH-FL. B.C.		300
EUGENE, PRINCE-AUSTRIAN GENERAL-		1663
EUGENIE, MARIE - FR. EMPRESS		- 1826
EUGENIUS I.- ROMAN PONTIFF-		D. 657
EUGENIUS II.	"	" D. 827
EUGENIUS III.	"	" D. 1153
EUGENIUS IV.	"	" D. 1447
EULER, LEONARD- SWISS MATHEMATN		-1707
EURIPIDES - GREEK TRAGIC POET - B.C.		480
EUSEBIUS PAMPHILI-CAESARIAN HISTN		266
EVANS, AUGUSTA-AM. NOVELIST		-1836
EVANS, MARIAN- ENG. NOVELIST		-1820
EVARTS, WM. M.- AM. LAWYER		-1818
EVELYN, JOHN- ENG. AUTHOR		-1620
EVERETT, EDW.- AM. SCHOLAR		-1794
EWING, THOS.- AM. STATESMAN		-1789
EXMOUTH, EDW.- ENG. ADMIRAL		-1757
EZEKIEL - HEBREW PROPHET - FL. B.C.		599
EZRA - HEBREW LAW-MAKER - FL. B.C.		536
FABIUS MAXIMUS - ROM. CONSUL - B.C.		203
FARRENHEIT, F.D.- GER. PHILOSOPHER		-1686



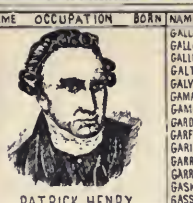
RUTHERFORD B. HAYES.

NAME	OCCUPATION	BORN
FAIRFAX, THOS.- ENG. GENERAL		-1611
FALCONER, WM.- SCOT. POET		-1732
FALIERI, MARINO- DOGE OF VENICE		-1478
FANEUIL, PETER- AM. MERCHANT		-1700
FARADAY, MICHAEL- ENG. CHEMIST		-1791
FARQUHAR, GEO.- IRISH DRAMATIST		-1678
FARRAGUT, DAVID- AM. ADMIRAL		-1801
FAUST, DR. JOHANN- GER. NECROMAN-FL.		1500
FAUST, JOHANN- GER. INVENT. PRINT.- D.		1466
FAWKES, GUY- ENG. CONSPIRATOR- D.		1606
FEARNE, CHAS.- ENG. JURIST		-1749
FENTON, CHAS. A.- ENG. & AUTHOR		-1824
FENELON, FRANCOIS DE SALIGNAC DE LA MOTHE		-1651
FERDINAND I.- GER. EMPEROR		-1503
FERDINAND II.	"	" -1578
FERDINAND III.	"	" -1608
FERDINAND IV.- KING OF NAPLES		-1751
FERDINAND I.- KING OF CASTILE-		1000
FERDINAND III.	"	" -1199
FERDINAND IV.	"	" -1285
FERDINAND V.- KING OF SPAIN		-1452
FERDINAND VI.	"	" -1713
FERDINAND VII.	"	" -1784



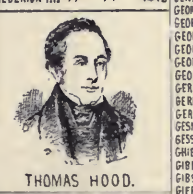
NATHANIEL HAWTHORNE.

NAME	OCCUPATION	BORN
FERGUSON, ADAM- SCOT. PHILOSPR		-1724
FERGUSON, JAS.- SCOT. ASTRON'MR		-1710
FERNANDEZ, DINIZ- PORTG'S NAVIGAT'L		
FESSENDEN, W.R.- AM. STATESMAN		-1806
FICHTE, JOHANN- GER. PHILOSOPHER		-1762
FIELD, CYRUS W.- AM. MERCHANT		-1819
FIELD, DAVID A.- AM. JURIST		-1805
FIELDING, HENRY- ENG. NOVELIST		-1701
FIESOLE GIOVANNI - ITAL. PAINTER		-1387
FILLMORE, MILLARD- 13TH PRES. U.S.		-1800
FISH, HAMILTON- AM. STATESMAN		-1808
FITCH, JOHN, INVENTOR		-1797
FLAMSTEED, JOHN- ENG. ASTRON.		-1646
FLAXMAN, JOHN- ENG. SCULPTOR		-1755
FLETCHER, JOHN- ENG. DRAMATIST		-1576
FLEURY, ANDRE W.- FR. STATESMAN		-1653
FONTENELLE, BERNARD- FR. AUTHOR		-1657
FOOTE, ANDREW H.- AM. ADMIRAL		-1806
FOOTE, SAMUEL- ENG. COMEDIAN		-1720
FORBES, EDW.- ENG. NATURALIST		-1815
FORREST, EDW.- AM. TRAGEDIAN		-1806
FORSTER, JOHN- ENG. BIOGRAPHER		-1812



PATRICK HENRY.

NAME	OCCUPATION	BORN
FORSYTH, JOHN- AM. STATESMAN		-1780
FOSCARI, FRANCESCO- DOGE OF VENICE		-1373
FOSTER, JOHN- ENG. ESSAYIST		-1770
FOUQUET, NICOLAS- FR. STATESMAN		-1615
FOURIER, FRANCOIS- FR. SOCIALIST		-1772
FOX, CHAS. J.- ENG. STATESMAN		-1749
FOX, GEO.- ENG. FOUN. OF SOC. OF FRIENDS		-1624
FOY, MAXIMILIAN- FR. GENERAL		-1775
FRANCIA, JOSE- DICTATOR OF PARAGUAY		-1757
FRANCIS I.- KING OF FRANCE		-1494
FRANCIS II.	"	" 1543
FRANCIS I.- GER. EMPEROR		-1708
FRANCIS II.- " "		-1768
FRANCIS JOSEPH- AUSTRIAN EMP.		-1830
FRANCIS, ST.- FOUND. FRANCISCANS		-1182
FRANCIS XAVIER, ST.- FR. JESUIT		-1506
FRANKLIN, BENJ.- AM. PHILOSOPHER		-1706
FRANKLIN, SIR JOHN- ENG. EXPLORER		-1786
FREDERICK VI.- KING OF DENMARK		-1768
FREDERICK VII.	"	" -1808
FREDERICK I.- GER. EMPEROR		-1121
FREDERICK II.	"	" -1194
FREDERICK III.	"	" -1415

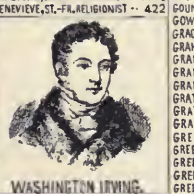


THOMAS HOOD.

NAME	OCCUPATION	BORN
FREDERICK I.- KING OF PRUSSIA		-1657
FREDERICK WILLIAM I.	"	" -1688
FREDERICK II., THE GREAT	"	" -1712
FREDERICK WILLIAM II.	"	" -1744
FREDERICK " " III.	"	" -1770
FREDERICK " " IV.	"	" -1795
FREEMAN, EDW. A.- ENG. HISTORIAN		-1823
FRELINGHUYSEN, THEO.- AM. STSMN		-1787
FRELINGHUYSEN, F.T.	"	" 1817
FREMONT, JOHN C.- AM. EXPLORER		-1813
FROEBEL, FREDK.- GER. EDUCATOR		-1782
FROISSART, JEAN- FR. HISTORIAN		-1337
FROUDE, JAS. A.- ENG. HISTORIAN		-1818
FULLER, JOHN W.- AM. ADVANCES		-1810
FULTON, ROBT.- AM. INVENTOR		-1765
GADSDEN, CHRIS.- AM. STATESMAN		-1724
GADSDEN, JAS.	"	" -1788
GAINSBOROUGH, THOS.- ENG. PAINTER		-1727
GALEN - GREEK PHYCIAN		-130
GALERIUS, DAIUS- ROM. GENERAL		-292
GALILEO - ITAL. ASTRONOMER		-1564
GALL, FRANZ JOS.- GER. PHYSICIAN		-1758

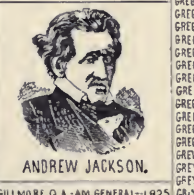
DAVID HUME.

NAME	OCCUPATION	BORN
GALLATIN, ALBERT- AM. STATESMAN		-1761
GALLAUDET, T. H.- AM. CLERGYMAN		-1787
GALLIENUS, PUBLIUS - ROM. EMP.		- 237
GALT, JOHN- SCOT. NOVELIST		-1779
GALVANI, ALOISIO - ITAL. PHYSIOLOGIST		-1737
GAMA, VASCO DA- PORT. NAVIGATOR		-1450
GAMBETTA, LEON- FR. ORATOR		-1838
GARDINER, STEPHEN- ENG. PRELATE		-1483
GARFIELD, JAS. A.- 20TH PRES. U.S.		-1831
GARIBALDI, GUISEPPE - ITAL. PATRIOT		-1807
GARRICK, DAVID- ENG. ACTOR		- 1716
GARRISON, WM. L.- AM. ABOLITIONIST		-1804
GASKELL, ELIZABETH G.- ENG. NOVELIST		-1810
GASSENDI, PIERRE- FR. SAVANT		-1592
GATES, HORATIO- AM. GENERAL		-1728
GATTI, G. RICHD. L.- AM. INVENTOR		-1818
GAUSS, KARL F.- GER. MATEMATICIAN		-1777
GAUTIER, THEOPHILE - FR. POET		- 1811
GAY, JOHN- ENG. POET		- 1688
GAY-LUSSAC, JOS.- FR. CHEMIST		- 1778
GENEVIEVE, ST.- FR. RELIGIONIST		- 422



WASHINGTON IRVING.

NAME	OCCUPATION	BORN
GENGHIS KHAN - MOGUL CONQUEROR		-1163
GENSERIC - KING OF THE VANDALS		- 401
GEORGE, HENRY- AM. POLITICAL WRITER		-1839
GEORGE I.- KING OF ENGLAND		-1660
GEORGE II.	"	" -1683
GEORGE III.	"	" -1738
GEORGE IV.	"	" -1762
GEORGE, ST.- BISHOP OF ALEXANDRIA		-D.361
GERICAULT, JEAN- FR. PAINTER		-1790
GERDME, JEAL L.- FR. PAINTER		-1824
GERRY, ELBRIDGE- AM. STATESMAN		-1744
GESNER, CONRAD- SWISS NATURALIST		-1516
GESSLER- AUS. BAILIFF KILLED BY TELL-		-D.1307
GHIBERTI, LORENZO - ITAL. SCULPTOR		-1378
GIBBON, EDWARD- ENG. HISTORIAN		-1737
GIBSON, JOHN- ENG. SCULPTOR		-1790
GIFFORD, WM.- ENG. WRITER		-1757
GILBERT, SIR HUMPHREY- ENG. NAVR		-1539
GILES, WM. B.- AM. STATESMAN		-1762

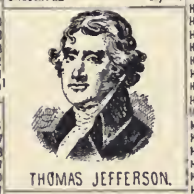


ANDREW JACKSON.

NAME	OCCUPATION	BORN
GILLMORE, Q. A.- AM. GENERAL		-1825
GILLOTT, JOS.- ENG. PEN MANUFACR		-1800
GIRARD, STEPHEN- AM. MERCHANT		-1750
GIRARDIN, EMILE- FR. JOURNALIST		-1806
GIULIO, ROMANO - ITAL. PAINTER		-1492
GLADSTONE, WM. E.- ENG. STATESMAN		-1809
GLAUBER, JOHANN R.- GER. CHEMIST		-1604
GLENDOWER, OWEN- WELSH CHIEFTAIN		-1350
GLUCK, CHRISTOPH- GER. COMPOSER		-1714
GODWIN, WM.- ENG. NOVELIST		--1756
GOETHE, JOHANN W.- GER. POET		--1749
GOLOSMITH, OLIVER - IRISH POET		-1728
GOMEZ, SEBASTIANO - SPAN. PAINTER		-1616
GONSALVO DE CORDOVA - SPAN. GEN'L		-1443
GOODRICH, SAML. G.- AM. AUTHOR		-1793
GOODYEAR, CHAS.- AM. INVENTOR		-1800
GORDON, GEO.- LORD- ENG. AGITATOR		-1750
GORE, CATHARINE G.- ENG. NOVELIST		-1799
GOTTSCHALK, LOUIS M.- AM. PIANIST		-1829

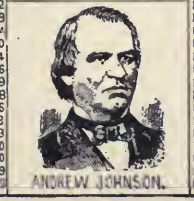
JEANNE DARC (JOAN OF ARC).

NAME	OCCUPATION	BORN
GOUGH, JOHN B.- AM. TEM. LECT.		-1817
GOULD, AUGUSTUS A.- AM. NATYST		-1805
GOULD, JAY- AM. RAILY MANAGER		-1836
GOUNOD, CHAS. F.- FR. COMPOSER		-1818
GOWER, JOHN- ENG. POET		-1320
GRACCHUS, CAIUS - ROM. STATSMN		B.C. 159
GRAHAM, JOHN- SCOT. GENERAL		-1650
GRANT, JAS.- SCOT. NOVELIST		-1822
GRANT, U.S.- 18TH PRES. U.S.		-1822
GRANVILLE, JOHN C.- ENG. STATSMN		-1690
GRATTAN, HENRY- IRISH ORATOR		-1746
GRAY, ASA- AM. BOTANIST		-1810
GRAY, THOS.- ENG. POET		-1716
GREELEY, HORACE - AM. JOURNLST		-1811
GREEN, JOHN R.- ENG. HISTORIAN		-1837
GREENE, NATHANL.- AM. GENERAL		-1742
GREENLEAF, BENJ.- AM. AUTHOR		-1786
GREENOUGH, HORATIO- AM. SCULPT.		-1805
GREGORY I.- ROMAN PONTIFF		D. 604
GREGORY II.	"	" D. 731
GREGORY III.	"	" D. 741



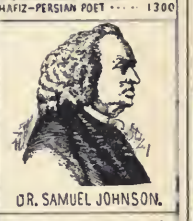
THOMAS JEFFERSON.

NAME	OCCUPATION	BORN
GREGORY IV.- ROMAN PONTIFF		D. 844
GREGORY V.	"	" D. 999
GREGORY VI.	"	" D. 1047
GREGORY VII.	"	" D. 1085
GREGORY VIII.	"	" D. 1187
GREGORY IX.	"	" D. 1241
GREGORY X.	"	" D. 1276
GREGORY XI.	"	" D. 1378
GREGORY XII.	"	" D. 1417
GREGORY XIII.	"	" D. 1585
GREGORY XIV.	"	" D. 1591
GREGORY XV.	"	" D. 1623
GREGORY XVI.	"	" D. 1846
GREGORY, ST.- GR. FATH. OF THE CHURCH		- 332
GREVY, FRANCOIS - PRES. OF FRANCE		-1813
GREY, CHAS.- ENG. STATESMAN		-1764
GREY, LADY JANE- GIFTED ENG. LADY		-1537
GRIMM, FRIEDRICH M.- GER. AUTHOR		-1723
GRIMM, JACOB L.- GER. PHILOLOGIST		-1785
GRISI, GIULIA - ITAL. SINGER		-1812
GRISWOLD, RUFUS W.- AM. AUTHOR		-1815



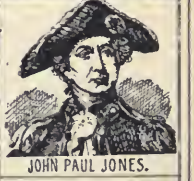
ANDREW JOHNSON.

NAME	OCCUPATION	BORN
GROTE, GEO.- ENG. HISTORIAN		-1794
GROTIUS, HUGA - DUTCH JURIST		-1583
GROUCHY, EMMANL.- FR. GENERAL		-1766
GROVE, WM. R.- ENG. SCIENTIST		-1811
GUDIN, JEAN- FR. PAINTER		- 1802
GUIDO, RENI - ITAL. PAINTER		- 1575
GUISCARD, ROBT.- NORMAN SOLDIER		-1015
GUISE, CHAS.- CARDL OF LORRAINE		-1525
GUISE, CLAUDE - FR. GENERAL		-1496
GUIZOT, FRANCOIS - FR. HISTORIAN		-1787
GUNTER, EDM.- ENG. MATHEMAT'N		-1581
GURNEY, JOS. JNO.- ENG. PHILANTHST		-1788
GUSTAVUS I.- KING OF SWEDEN		-1496
GUSTAVUS II.	"	" -1594
GUSTAVUS III.	"	" -1746
GUSTAVUS IV.	"	" -1778
GUTENBERG, J.- GER. INV. OF PRINTG		-1400
GUYNNE, ELEA.- ENG. ACTRESS		-1650
HADRIAN - ROMAN EMPEROR		- 76
HAFIZ - PERSIAN POET		1300



DR. SAMUEL JOHNSON.

NAME	OCCUPATION	BORN
HAHNEMANN, S.C.F.- GER. PHYSN		-1755
HAKLUYT, RICHD.- ENG. HISTORIAN		-1553
HALE, EDW. EVT.- AM. CLERGYMAN		-1822
HALE, SIR MATTHEW- ENG. JURIST		-1609
HALEVY, JACQUES- FR. COMPOSER		-1799
HALIBURTON, THOS.- NOVA SCOTIAN JURIST		-1796
HALIFAX, CHAS. M.- ENG. STATESMAN		-1661
HALL, JAS.- AM. GEOLOGIST		- 1811
HALLAM, HENRY- ENG. HISTORIAN		-1777
HALLECK, FITZ-GREENE- AM. POET		-1790
HALLEY, EDM.- ENG. ASTRONOMER		-1656
HAMILCAR - CARTHAGINIAN GEN'L		B.C. 229
HAMILTON, ALEX.- AM. STATESMAN		-1757
HAMILTON, SIR WM.- SCOT. METAPHYS		-1788
HAMILTON, SIR WM. R.- IRISH ASTRON.		-1805
HAMLIN, HANNIBAL- AM. STATESMAN		-1809
HAMPDEN, JOHN- ENG. STATESMAN		-1594
HAMPTON, WADE- AM. CONFED. GEN'L		-1818



JOHN PAUL JONES.

NAME	OCCUPATION	BORN
HANCOCK, JOHN- AM. STATESMAN		-1737
HANCOCK, WINFIELD S.- AM. GEN'L		-1824
HANDEL, GEO. F.- GER. COMPOSER		-1684
HANNIBAL - CARTHAGINIAN GEN'L		B.C. 247
HANS SACHS - GER. POET		-1494
HARDICANUTE - KING OF ENG.		--1018
HARDINGE, HENRY- ENG. GENERAL		-1785
HARDY, THOS.- ENG. NOVELIST		-1840
HARIRI, ABU MOHAM.- ARAB. POET		-1054
HARLEY, ROBT.- ENG. STATESMAN		-1661
HAROLD I.- KING OF ENGLAND		-1040
HAROLD II.	"	" -1066
HAROUN-AL-RASCHID - CALIPH OF BAGDAD		766
HARRISON, BENJ.- 23 PRES. OF U.S.		-1833
HARRISON, JOHN - ENG. INVENTOR		-1693
HARRISON, WM. H.- 9TH PRES. U.S.		-1773
HARTE, FRANCIS BRET- AM. HUMORIST		-1836
HARVARD, JOHN- FOUND. HAR. COLL.		-1608
HARVEY, WM.- ENG. PHYSICIAN		-1578
HASDRUBAL - PUNIC GENERAL		B.C. 221

NAME	OCCUPATION	BORN
HIPPARCHUS-GREEK ASTRONOMER-FL.		B.C.50
HIPPOCRATES-GREEK PHYSICIAN-		B.C. 460
HOBBES, THOS.-ENG. PHILOSOPHER-		1588
HOCHE, LAZARE-FR. GENERAL ---		1768
HOE, RICH'D M.-AM. INVENTOR--		1812
HOFFMAN, CHAS. F.-AM. AUTHOR-		1806
HOGARTH, WM.- ENG. ARTIST ---		1697
HOGG, JAS.- SCOT. POET -----		1772
HOLBEIN, HANS- GER. PAINTER -		1497
HOLLAND, J. G.- AM. AUTHOR ---		1819
HOLMES, DUVER W.-AN. AUTHOR-		1809
HOMER- GREEK POET - FL. B.C.		875
HONORIUS, FLAVIUS- ROM. EMPR-		384
HOOD, THOS.- ENG. POET ----		1798
HOPKINS, JOHNS- AM. PHILANTHIST-		1795
HORACE - LATIN POET --- B.C.		65
HOSMER, HARRIET- AM. SCULPTOR-		1830
HOUSTON, SAM- AM. GENERAL ---		1793
HOWARD, JOHN- ENG. PHILANTHIST-		1726

ABRAHAM LINCOLN.

HOWE, ELIAS- AM. INVENTOR-		1819
HOWE, SAM'L G.- AM. PHILANTHIST-		1801
HUDSON, HENRY- ENG. NAVIGATOR-		D. 1611
HUGHES, THOS.- ENG. AUTHOR ---		1823
HUGO, VICTOR- FR. POET -----		1802
HUMBOLDT, F. H. A.- GER. SCIENTIST-		1769
HUME, DAVID- SCOT. HISTORIAN-		1711
HUNT, LEIGH- ENG. POET ----		1784
HUNTER, JOHN- SCOT. SURGEON-		1728
HUSS, JOHN- BOHEMIAN REFORMER-		1373
HUXLEY, THOS. H.- ENG. SCIENTIST-		1825
HUYGENS, CHRISTIN- DUTCH SAVANT -		1629
HYDER-ALI- HINDOO PRINCE ---		1718
IBRAHIM PASHA- VICEROY OF EGYPT-		1789
IGNATIUS, ST.- BISHOP OF ANTIOCH-		D. 107
IGNATIUS LOYOLA- SPAN. JESUIT ---		1491
INGELOW, JEAN- ENG. NOVELIST ---		1830
INGERSOLL, ROBT. G.- AM. LAWYER -		1833
INGRES, JEAN- FR. PAINTER ---		1781

HENRY W. LONGFELLOW.

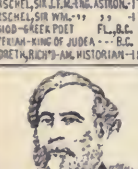
INNOCENT I.- ROM. PONTIFF-		D. 417
INNOCENT II.- " "		B.1143
INNOCENT III.- " "		B.1216
INNOCENT IV.- " "		D.1254
INNOCENT V.- " "		D.1276
INNOCENT VI.- " "		B.1362
INNOCENT VII.- " "		B.1408
INNOCENT VIII.- " "		D.1492
INNOCENT IX.- " "		D.1591
INNOCENT X.- " "		D.1655
INNOCENT XI.- " "		D.1689
INNOCENT XII.- " "		D.1700
INNOCENT XIII.- " "		D.1724
IRENÆUS, ST.- BISHOP OF LYONS-		140
IRENE- BYZANTINE EMPRESS ---		752
IRVING, EDW. - SCOT. DIVINE		1792
IRVING, WASHINGTON- AM. AUTHOR-		1783
ISABELLA I.- QU. OF CASTILE ---		1451
ISABELLA II.- QU. OF SPAIN ----		1830
ISAIAH- HEBREW PROPHET- FL. B.C.		740

BEN JONSON.

HASTINGS, WARREN- VICEROY OF INDIA-		1732
HAVELOCK, HENRY- ENG. GENERAL ---		1795
HAWTHORNE, NATHAN'L- AM. AUTHOR-		1804
HAYDN, JOS.- GER. COMPOSER ----		1732
HAYES, ISAAC- AM. ARCTIC EXPLOR-		1832
HAYES, R. B.- 19TH PRES. OF U.S.-		1822
HAYNE, ROBT. Y.- AM. STATESMAN-		1791
HEGEL, GEORG W.- GER. PHILOS'R-		1770
HEINE, HEINRICH- GER. POET ---		1799
HELMHOLTZ, H.- GER. PHYSIOLIST-		1821
HEMANS, FELICIA D.- ENG. POETESS-		1794
HENDRICKS, THOS. A.- AM. STATE'N-		1819
HENRY I.- KING OF FRANCE ---		1005
HENRY II.- " "		-1519
HENRY III.- " "		-1551
HENRY IV.- " "		-1553
HENRY I.- GER. EMPEROR--		876
HENRY II.- " "		-- 972
HENRY III.- " "		--1017
HENRY IV.- " "		--1050
HENRY V.- " "		--1081

LA FAYETTE.

HENRY VI.- GER. EMPEROR ---		1165
HENRY VII.- " "		---1262
HENRY I.- KING OF ENGLAND-		1068
HENRY II.- " "		--1133
HENRY III.- " "		-1207
HENRY IV.- " "		-1366
HENRY V.- " "		-1388
HENRY VI.- " "		1421
HENRY VII.- " "		-1456
HENRY VIII.- " "		-1491
HENRY, PATRICK- AM. ORATOR ---		1736
HERACLITUS- GREEK PHILOS.-		B.C. 535
HERBERT, GEO.- ENG. POET ---		1593
HERDER, JOHANN- GER. AUTHOR-		1744
HERKIMER, NICHOLAS- GER. GEN'L-		1728
HERODOTUS- GREEK HISTORIAN --		B.C. 484
HERRICK, ROBT.- ENG. POET --		1591
HERSCHEL, SIR J. F. W.- ENG. ASTRON.-		1792
HERSCHEL, SIR WM.- " "		-1738
HESIOD- GREEK POET	FL., B.C.	850
HEZEKIAH- KING OF JUDEA ---	B.C.	750
HILDRETH, RICH'D- AM. HISTORIAN-		1807

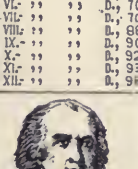


ROBERT E. LEE.

NAME	OCCUPATION	BORN
ISOCRATES- GREEK ORATOR-		B.C. 436
ITURBIDE, AGUSTIN- MEX. EMP'R-		1784
IVAN III.- RUS. EMPEROR ---		1439
IVAN IV.- " "		---1529
JACKSON, ANDREW- 7TH PRES. U.S.-		1767
JACKSON, T. J.- CONFED. GEN'L-		1824
JACOBI, FRIEDRICH- GER. PHILOS.-		1743
JACQUARD, JOS. M.- FR. INVENTOR-		1752
JAMES I.- KING OF SCOTLAND-		1394
JAMES II.- " "		-1430
JAMES III.- " "		-1453
JAMES IV.- " "		-1473
JAMES V.- " "		-1512
JAMES I.- KING OF ENG. & SCOT.		1566
JAMES II.- " "		-1633
JAMESON, ANNA- BRIT. AUTHOR-		1797
JANSEN, CORNELIS- DUTCH DIVINE-		1585
JANUARIUS, ST.- PAT. ST. OF NAPLES-		272
JASPER, WM.- BRAVE AM. SOLDIER-		1750
JAY, JOHN- AM. STATESMAN ---		1745
JEFFERSON, THOS.- 3RD PRES. U.S.-		1743
JEFFREY, FRANCIS- ENG. WRITER-		1773
JEFFRIES, GEO.- BRIT. JUDGE ---		1648
JENNER, EDW.- ENG. PHYSICIAN ---		1749
JEROME, ST.- LAT. FATH. OF CHUR.-		340

LORD LYTTON.

JEROME OF PRAGUE- BOHEM. DIVINE-		1378
JERROLD, DOUGLAS- ENG. AUTHOR -		1803
JOAN OF ARC- FR. HEROINE ---		1412
JOEL- HEBREW PROPHET- FL. B.C.		775
JOHN I.- KING OF FRANCE ---		1316
JOHN II.- " "		--1319
JOHN- KING OF ENGLAND ---		1166
JOHN I.- KING OF PORTUGAL-		1357
JOHN II.- KING OF POLAND ---		1609
JOHN III.- " "		---1624
JOHN I.- ROM. PONTIFF-	D.,	526
JOHN II.- " "	D.,	535
JOHN III.- " "	D.,	573
JOHN IV.- " "	D.,	642
JOHN V.- " "	D.,	686
JOHN VI.- " "	D.,	705
JOHN VII.- " "	D.,	707
JOHN VIII.- " "	D.,	882
JOHN IX.- " "	D.,	900
JOHN X.- " "	D.,	928
JOHN XI.- " "	D.,	936
JOHN XII.- " "	D.,	964



JAMES MADISON.

NAME	OCCUPATION	BORN
JOHN XIII.- ROM. PONTIFF-	D.,	972
JOHN XIV.- " "	D.,	984
JOHN XV.- " "	D.,	996
JOHN XVI.- " "	D.,	998
JOHN XVII.- " "	D.,	1003
JOHN XVIII.- " "	D.,	1009
JOHN XIX.- " "	D.,	1033
JOHN XXI.- " "	D.,	1277
JOHN XXII.- " "	D.,	1334
JOHN XXIII.- " "	D.,	1419
JOHN THE BAPTIST- PROPHET-	B.C.	5
JOHN, ST.- APOSTLE -----	D.,	100
JOHNSON, ANDREW- 7TH PRES. U.S.-		1808
JOHNSON, SAM'L- ENG. LEXICOGR-		1709
JOHNSTON, A. S.- CONFED. GEN.-		1803
JOHNSTON, J. E.- " "		-1807
JONAH- HEBREW PROPHET- FL. B.C.		800
JONES, JOHN PAUL- AM. NAV. COM.-		1747
JONES, SIR WM.- ENG. LINGUIST ---		1746

LORD MACAULAY.

JONSON, BEN- ENG. DRAMATIC POET-		1574
JOSEPH I.- GER. EMPEROR ---		1678
JOSEPH II.- " "		---1741
JOSEPHINE- FR. EMPRESS ---		1763
JOSEPHUS, FLAV.- JEWISH HISTORIAN-		37
JOSHUA- HEBREW LEADER - B.C.		1537
JUAREZ, B. P.- PRES. OF MEXICO--		1806
JUDSON, ADONIRAM- AM. MISSIONARY-		1788
JULIAN THE APOSTATE- ROM. EMP'R --		331
JULIAN I.- ROM. PONTIFF-	D.,	352
JULIAN II.- " "	D.,	1513
JULIAN III.- " "	D.,	1555
JUSTIN, ST.- CH. FATH. IN PALESTINE-		103
JUSTINIAN I.- BYZANTINE EMP'R-		483
JUVENAL, DECIMUS- LAT. POET --		40
KALAKAUA, DAVID- KING OF HAWAII-		1836
KALB, JOHN- AM. GENERAL ----		1721
KANE, ELISHA K.- AM. ARC. EXPLOR-		1820
KANE, WM.- AM. LAWYER-		1794
KEAN, EDM.- ENG. TRAGEDIAN -		1787
KEARNEY, PHILIP- AM. GEN'L --		1815

CARDINAL MAZARIN.

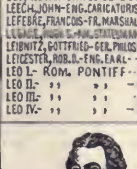
KEATS, JOHN- ENG. POET ----		1795
KELLERMANN, F. C.- FR. GENERAL-		1735
KEMBLE, JOHN P.- ENG. TRAGEDIAN-		1757
KEMPIS, THOS. A.- GER. MONK ---		1380
KENT, JAS.- AM. JURIST ----		1763
KEPLER, JOHANN- GER. ASTRON.-		1571
KEY, FRANCIS S.- AM. POET ----		1779
KING, RUFUS- AM. STATESMAN-		1755
KING, WM. R. - " "		-1786
KINGSLEY, CHAS.- ENG. DIVINE -		1819
KITTO, JOHN- ENG. BIBL SCHOLAR-		1804
KLEBER, JEAN B.- FR. GENERAL-		1754
KLOPSTOCK, F. G.- GER. POET --		1724
KNIGHT, CHAS.- ENG. AUTHOR ---		1791
KNOWLES, JAS. S.- ENG. ACTOR-		1784
KNOX, HENRY- AM. STATESMAN -		1750
KNOX, JOHN- SCOT. DIVINE ---		1505
KOSCIUSCO, THADEUS- POLISH PATRIOT-		1746
KOSSUTH, LOUIS- HUNGARIAN PATRIOT-		1802
KOTZEBUE, AUGUST- GER. DRAMATIST-		1761
KUTUSOFF, MIKHAIL- RUS. GENERAL-		1745

JOHN STUART MILL.

LABLANCHE, LUIGI- ITAL. SINGER ---		1794
LA FAYETTE, MARQUIS- FR. PATRIOT-		1757
LA FONTAINE, JEAN- FR. POET ---		1621
LA GRANGE, JOS. FR. MATHEMAT'N-		1736
LAMARTINE, ALPHONSE- FR. POET-		1790
LAMB, CHAS.- ENG. ESSAYIST ----		1775
LAMBERT, JOHN- ENG. GENERAL --		1619
LANDOR, WALT. S.- ENG. AUTHOR -		1775
LANDSEER, SIR EDW.- ENG. PAINTER-		1802
LANGTRY, MRS. L.- AM. ACTRESS ---		1852
LANNES, JEAN- FR. MARSHAL ---		1769
LAOCOON, WM. ENG. SCULPT'R-		1757
LAPLACE, P. S.- FR. ASTRONOMER -		1749
LA ROCHEFOUCAULD, F.- FR. AUTHOR-		1613
LA SALLE, ROBT. C.- FR. EXPLORER-		1643
LAS CASES, EMAN'L- FR. GENERAL-		1766
LATIMER, HUGH- ENG. REFORMER-		1490
LATOUR D'AUVERGNE- FR. OFFICER-		1743
LAUD, WM.- ENG. PRELATE ----		1573
LAURENS, HENRY- AM. STATES'N-		1724
LAVATER, JOHN C.- SWISS PHYSIOL'T-		1741

JOHN MILTON.

LAVOISIER, A. L.- FR. CHEMIST ---		1743
LAW, JOHN - SCOT. FINANCIER ---		1671
LAWRENCE, A.- AM. PHILANTHROP'T-		1786
LAWRENCE, JAS.- AM. NAVAL HERO -		1781
LAWRENCE, THOS.- ENG. PAINTER-		1769
LEBRUN, CHAS.- FR. PAINTER ----		1619
LEDYARD, JOHN- AM. TRAVELER -		1751
LEE, ARTHUR- AM. STATESMAN -		1740
LEE, CHAS.- AM. GENERAL -----		1775
LEE, FRANCIS L.- AM. PATRIOT ----		1734
LEE, HENRY- AM. GENERAL ----		1756
LEE, RICH'D H.- AM. ORATOR ----		1732
LEE, ROBT. E.- CONFED. GENERAL-		1806
LEECH, JOHN- ENG. CARICATURIST-		1817
LEFEBRE, FRANCOIS- FR. MARSHAL -		1755
LEGARE, HUGH S.- AM. STATESMAN-		1791
LEIBNITZ, GOTTFRIED- GER. PHILOS'R-		1646
LEICESTER, ROB. D.- ENG. EARL ----		1532
LEO I.- ROM. PONTIFF-	D.,	461
LEO II.- " "	D.,	684
LEO III.- " "	D.,	816
LEO IV.- " "	D.,	855



JAMES MONROE.

NAME	OCCUPATION	BORN
LEO V.- ROM. PONTIFF- D.,		903
LEO VI.- " " " -D.,		929
LEO VII.- " " " -D.,		939
LEO VIII.- " " -D.,		965
LEO IX.- " " " -D.,		1054
LEO X.- " " " -D.,		1521
LEO XI.- " " " -D.,		1605
LEO XII.- " " "		1760
LEO XIII.- " " "		1810
LEONIDAS-KING OF SPARTA-B.C.		480
LEOPOLD I.-GER. EMPEROR		1640
LEOPOLD II.- " "		1747
LEOPOLD I.-KING OF BELGIUM		1790
LEOPOLD II.- " "		1835
LE SAGE, ALAIN R.-FR. NOVELIST		1668
LESLIE, CHAS. R.-ENG. PAINTER		1794
LESSEPS, FERD.-FR. ENGINEER		1805
LESSING, GOTTHOLD-GER. CRITIC		1729

PROF. S.F.B. MORSE.

LEVER, CHAS. J.-IRISH NOVELIST		1806
LEVERRIER, U.J.J.-FR. ASTRONOMER		1811
LEWES, GEO. H.- ENG. AUTHOR		1817
LEWIS, MERIWETHER-AM. EXPLORER		1774
LEYDEN, LUCAS-DUTCH PAINTER		1494
LIEBER, FRANCIS-AM. PUBLICIST		1800
LIEBIG, JUSTUS-GER. CHEMIST		1803
LINCOLN, ABRAHAM-16TH PRES. U.S.		1809
LINCOLN, BEN. J.- AM. GENERAL		1733
LINO, JENNY-SWED. VOCALIST		1821
LINNAEUS, CHAS.-SWED. BOTANIST		1707
LISZT, FR. (FRANZ)-THE PIANIST		1811
LITTLETON, THOS.-ENG. JURIST		1420
LIVERPOOL, ROB.-ENG. STATESMAN		1770
LIVINGSTON, EDW.- AM. JURIST		1764
LIVINGSTONE, DAVID- SCOT. EXPLORER		1813
LIVY, TITUS-ROM. HISTORIAN	-B.C.	59
LOCKE, JOHN-ENG. PHILOSOPHER		1632
LOGAN, JOHN A.- AM. STATESMAN		1826
LONG, ROGER-ENG. ASTRONOMER		1680

NAPOLEON.

LONGFELLOW, H.W.-AM. POET		1807
LONGSTREET, JAS.-CONFED. GEN.		1821
LORRAINE, DUKE OF-GER. GENTL		1604
LOSSING, BENSON J.-AM. HISTORIAN		1813
LOUIS I.- KING OF FRANCE		778
LOUIS II.- " "		846
LOUIS III.- " "		963
LOUIS IV.- " "		921
LOUIS V.- " "		967
LOUIS VI.- " "		1078
LOUIS VII.- " "		1120
LOUIS VIII.- " "		1187
LOUIS IX.- " "		1215
LOUIS X.- " "		1289
LOUIS XI.- " "		1423
LOUIS XII.- " "		1462
LOUIS XIII.- " "		1601
LOUIS XIV.- " "		1638
LOUIS XV.- " "		1710
LOUIS XVI.- " "		1754

NAME	OCCUPATION	BORN

WILLIAM PENN.

LOUIS XVII.-KING OF FRANCE		1785
LOUIS XVIII.- " "		1755
LOUIS PHILIPPE- "		1773
LOUIS IV.- GER. EMPEROR		1285
LOUVOIS, FRANCOIS-FR. STATESM'N		1641
LOVER, SAM'L-IRISH NOVELIST		1797
LOWELL, JAS. RUSS'L-AM. POET		1819
LOYOLA, IGNATIUS-SPAN. JESUIT		1491
LUCAN, MARCUS-ROM. POET		39
LUCIAN- GREEK SATIRIST		120
LUCRETIUS- LATIN POET	-B.C.	95
LUCULLUS, LUCIUS-ROM. GEN.	B.C.	110
LUTHER, MARTIN-GER. REFORMER		1483
LUXEMBOURG, F.H.-FR. MARSHAL		1628
LYCURGUS-SPARTAN LAW-GIVER	-FL.B.C.	850
LYELL, SIR GEO.- SCOT. GEOLOGIST		1797
LYNDHURST, J.S.C.-ENG. CHANCELLOR		1772

COMMODORE PERRY.

LYON, NATHANIEL-AM. GENERAL		1819
LYSANDER-SPARTAN SOLDIER-D.	B.C.	395
LYSIMACHUS-KING OF THRACE	-B.C.	355
LYSIPPUS-GREEK SCULPTOR-FL.	B.C.	330
MACAULAY, THOS. B.-ENG. ESSAYIST		1800
MC CARTY, JUSTIN-IRISH WRITER		1830
MACCHIAVELLI, N.-ITAL. STATESMAN		1469
MAC CLELLAN, GEO. B.- AM. GENERAL		1826
MC COSH, JAS.- SCOT. THEOLOGIAN		1811
MACDONALD, ETIENNE-FR. MARSHAL		1765
MACDONALD, GEO.- SCOT. POET		1824
MACDONALD, WM. R.- CHRISTENED		1814
MACKINTOSH, SIR JAS.-SCOT. STATESM'N		1765
MC GLOSKEY, JNO.- 1ST AM. CARDINAL		1810
MC DOWELL, IRVIN- AM. GENERAL		1818
MC KINLEY, WM.- AM. STATESMAN		1844
MAC MAHON, M.E.- PRES. OF FR.		1808
MACPHERSON, JAS.- SCOT. POET		1738
MACREADY, WM. C.- ENG. ACTOR		1793
MADISON, JAMES- 4TH PRES. U.S.		1751

FRANKLIN PIERCE.

NAME	OCCUPATION	BORN
MAGELLAN, FER.- PORT. NAVIGATOR		1470
MAHMOUD I.- SULTAN OF TURKEY		1696
MAHMOUD II.- " "		1785
MAINTENON, FRANCOISE-W. LOUIS XIV.		1635
MALIBRAN, MARIA F.- FR. VOCALIST		1808
MALPIGHI, MARCELLO-ITAL. SURGEON		1628
MALTHUS, THOS. R.-ENG. POLIT. WRITER		1766
MANDEVILLE, SIR JOHN-ENG. TRAVELER		1300
MANNING, HEN. E.- ENG. CARDINAL		1808
MANN, HORACE- AM. EDUCATOR		1796
MARCELLUS, M.C.- ROM. CONSUL		1185
MANUTIUS, A.- VENETIAN PRINTER		1449
MARAT, JEAN P.-FR. REVOLUTIONIST		1744
MARCELLUS, MARC.-ROM. CONSUL-B.C.		268
MARGARET OF ANJOU-W. HEN. VI. ENG.		1429
MARGARET- QU. DEN. NOR. SWED.		1353
MARGARET- QU. OF NAVARRE		1492
MARGARET- QU. OF FRANCE		1553
MARIA II.- QU. OF PORTUGAL		1819

JAMES K. POLK.

MARIA DE' MEDICI- QU. OF FRANCE		1573
MARIA LOUISA- FR. EMPRESS		1791
MARIA THERESA- QU. HUN. & BOH.		1717
MARIE ANTOINETTE- W. LOUIS XVI.		1755
MARIO, GIUSEPPE- ITAL. SINGER		1810
MARION, FRANCIS- AM. GENERAL		1732
MARIOTTE, EDME- FR. PHYCISIST- D.		1684
MARIUS, CAIUS- ROM. GENERAL- B.C.		157
MARLBOROUGH, J.C.- ENG. GENERAL		1650
MARLOWE, CHRIS.- ENG. DRAMATIST		1564
MARMONT, AUGUSTE- FR. MARSHAL		1774
MARQUETTE, JAQUES- FR. EXPLORER		1637
MARRYAT, FREQM- ENG. NOVELIST		1792
MARSH, GEO. P.- AM. PHILOLOGIST		1801
MARTIAL, MARCUS V.- LATIN POET		43
MATINEAU, HARRIET- ENG. WRITER		1802
MARY I.- QUEEN OF ENGLAND		1516
MARY II.- " "		1662
MARY STUART- QUEEN OF SCOTS		1542

ALEXANDER POPE.

MASON, JAS. M.- AM. STATESMAN		1797
MASON, LOWELL- AM. MUS. COMPOS.		1792
MASSENA, ANDRE- FR. MARSHAL		1758
MASSEY, GERALD- ENG. POET		1828
MATHER, COTTON- AM. DIVINE		1663
MATHEW, THEOBALD- IRISH PRIEST		1790
MAURICE OF NASSAU- GER. GENERAL		1567
MAURY, MAT. F.- AM. HYDROGRAPHER		1806
MAXIMILIAN I.- GER. EMPEROR		1459
MAXIMILIAN, F.J.- MEX. EMPEROR		1832
MAZARIN, CARDINAL- FR. STATESM'N		1602
MAZZEPPA, IVAN- POL. NOBLEMAN		1644
MEADE, GEO. G.- AM. GENERAL		1815
MEDICI, C.- CHIEF FLORENTINE REPUB.		1389
MEDICI, C.- GR. DUKE OF TUSCANY		1519
MEDICI, C.- PRINCE OF FLORENCE		1448
MEHEMET ALI- VICEROY OF EGYPT		1769
MEISSONIER, JEAN-FR. PAINTER		1811
MELANCHTHON, P.- GER. REFORMER		1497

NAME	OCCUPATION	BORN

SIR WALTER RALEIGH.

MELBOURNE, WM.- ENG. STATES.		1779
MELVILLE, ANDREW- SCOT. REFORMER		1545
MENDELSSOHN-BART. - GER. COMPOS.		1809
MESMER, FRIED'K- GER. PHYSICIAN		1733
METTERNICH, C.W.- AUST. STATESM'N		1773
MEYERBEER, G.- GER. COMPOSER		1794
MICHAEL- ANGELO- ITAL. ARTIST		1474
MIFFLIN, THOS.- AM. PATRIOT		1744
MILL, JAS.- SCOT. HISTORIAN		1773
MILL, JOHN STUART- ENG. PHILOS.		1806
MILLER, HUGH- SCOT. GEOLOGIST		1802
MILLER, C.H.- AM. POET		1841
MILLS, CLARK- AM. SCULPTOR		1815
MILTIADES- ATHEN. STATES.	-FL.B.C.	500
MILTON, JOHN- ENG. POET		1608
MIRABEAU, G.H.- FR. ORATOR		1749
MITCHEL, O.M.- AM. ASTRON'R		1810
MITCHELL, D.G.- AM. AUTHOR		1822
MITHRIDATES- KING OF PONTUS	B.C.	132
MOHAMMED- FOUNDER OF ISLAM		570

RICHELIEU.

MOHAMMED II.- TURKISH SULTAN		1430
MOHAMMED III- " "		1566
MOHAMMED IV " "		1642
MOLIERE, JEAN- FR. DRAMATIST		1622
MOLTKE, COUNT VON- GER. GENERAL		1800
MONK, GEO.- ENG. GENERAL		1608
MONMOUTH, JAS. S.- ENG. DUKE		1649
MONROE, JAS.- 5TH PRES. U.S.		1758
MONTAGUE, LADY- ENG. AUTHORESS		1690
MONTAIGNE, MICHEL- FR. PHILOS'R		1533
MONTALEMBERT, C.F.- FR. ORATOR		1810
MONTCALM, L.J.- FR. GENERAL		1712
MONTESQUIEU, CHAS. FR. AUTHOR		1689
MONTEZUMA II.- MEX. AZTEC EMP.		1480
MONTFORD, SIMON- NOR. CRUSADER		1150
MONTGOLFIER, J.E.- FR. INVENTOR		1745
MONTGOMERY, JAS.- SCOT. POET		1771
MONTMORENCY, ANNE- FR. MARSHAL		1493
MONTMORENCY, HEND'K	" "	1534
MONTMORENCY, MAT.	" "	1175
MONTROSE, J.G.- SCOT. GENERAL		1612
MOODY, D.L.- AM. EVANGELIST		1837
MOORE, SIR JOHN- BRIT. GENERAL		1761
MOORE, THOS.- IRISH POET		1779
MORALES, LUIS- SPAN. PAINTER		1509

ROBESPIERRE.

NAME	OCCUPATION	BORN
MORE, HANNAH- ENG. AUTHORESS		1745
MORE, SIR THOS.- ENG. STATESMAN		1480
MOREAU, JEAN- FR. GENERAL		1763
MORGAN, JNO. H.- CONFED. GENERAL		1825
MORLEY, JOHN- ENG. STATESMAN		1838
MORRIS, GEO. P.- AM. JOURNALIST		1802
MORRIS, ROBT.- AM. FINANCIER		1734
MORSE, S.F.B.- AM. INVENTOR OF TELEG'H		1791
MORTON, JAS. D.- SCOT. REGENT		1530
MORTON, OLIVER P.- AM. STATESMAN		1823
MOSES- HEBREW LAW-GIVER	-B.C.	1570
MOTLEY, JOHN L.- AM. HISTORIAN		1814
MOTT, VALENTINE- AM. SURGEON		1785
MOULTRIE, WM.- AM. GENERAL		1731
MOZART, JOHANN- GER. COMPOSER		1756
MULLER, MAX.- ENG. PHILOLOGIST		1823
MUNCHHAUSEN, BARON- GER. SOLDIER		1720
MURAT, JOACHIM- FR. MARSHAL		1771
MURILLO, B.E.- SPAN. PAINTER		1618
MURRAY, JAS. S.- SCOT. REGENT		1533

JOHN RUSKIN.

MURRAY, LINDLEY- ENG. GRAMMARIAN		1745
MUSSET, ALFRED- FR. POET		1810
NADIR SHAH- KING OF PERSIA		1688
NAPIER, SIR CHAS.- ENG. GENERAL		1782
NAPIER, JOHN- SCOT. MATHEMATICIAN		1550
NAPOLEON BONAPARTE- FR. EMPEROR		1769
NEANDER, J.A.W.- GER. THEOLOGIAN		1789
NEBUCHADNEZZAR- KING OF BABYLON	-B.C.	561
NECKER, JACQUES- FR. STATESMAN		1732
NEILSON, ADELAIDE- AM. ACTRESS		1853
NELSON, HORATIO- ENG. ADMIRAL		1758
NERO- ROMAN EMPEROR		37
NESSELRODE, CHAS. R.- RUS. STATESM'N		1780
NEWMAN, CARDINAL- ENG. DIVINE		1801
NEWTON, SIR ISAAC- ENG. PHILOSOPHER		1642

SIR WALTER SCOTT.

NEY, MICHEL- FR. MARSHAL		1769
NICHOLAS I.- RUS. EMPEROR		1796
NICHOLAS, ST.- BISHOP OF MYRA	-D.	340
NIGHTINGALE, FLOR. ENG. PHILANTH'ST		1820
NILSSON, CHRISTINE- SWED. VOCALIST		1843
NORTH, FRED'K- ENG. STATESMAN		1732
NOTTINGHAM, N.F.- ENG. JURIST		1621
NOYES, P.E.O.R.- AM. THEOLOGIAN		1798
O'BRIEN, WM. S.- IRISH PATRIOT		1803
O'CONNELL, DAN'L- IRISH ORATOR		1775
ODOACER- KING OF ITALY		D., 493
O'DONNEL, LEOPOLD- SPAN. STATES.		1809
OHLENSCHLAGER, A.G.- DANISH POET		1779
OERSTED, HANS C.- DAN. NAT. PHILOS.		1777
OFFENBACH, JACQ.- GER. COMPOSER		1819
OGLETHORPE, JAS.- ENG. GENERAL		1698
OLDCASTLE, SIR JNO.- ENG. REFORMER		1360
OLLENDORFF, HENRI- GER. EDUCATOR		1803
OLMSTEAD, DENISON- AM. ASTRON'R		1791
OMAR PASHA- TURKISH SOLDIER		1806

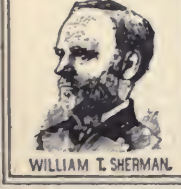
NAME	OCCUPATION	BORN

WILLIAM SHAKSPEARE.

O'MEARA, B.E.-IRISH SURGEON--		1780
ORANGE, WM., PR. OF-ENGLAND		553
ORIGEN-GREEK THEOLOGIAN ---		186
OSSOLI, MARG.F.-AM. AUTHORESS		1810
OTHO I.-GER. EMPEROR -----		912
OTHO II.- " " -----		955
OTHO III.- " " -----		980
OTHO IV.- " " -----		1174
OTIS, JAMES-AM. LAWYER ---		1725
OVID- ROMAN POET ----	B.C.	43
OWEN, RICHARD-ENG. ANATOMIST-		1804
OWEN, ROBT.-ENG. PHILANTHROPIST		1771
OXENSTIERN, AXEL-SWED. STATES-		1583
PAINE, J.A. GEN.-AM. PATRIOT ---		1490
PAGANINI, NICOLO-ITAL. VIOLINIST-		1784
PAINE, ROBT. T.-AM. LAWYER ---		1773
PAINE, THOS.-AM. FREE-THINKER-		1737
PAIXHANS, HENRI-FR. INVENTOR-		1783

GEN. P.H. SHERIDAN.

PALESTRINA, G.P.-ITAL. COMPOSER-		1524
PALFREY, JOHN G.-AM. HISTORIAN ---		17[illegible]
PALISSY, BERNARD-FR. POTTER ---		1510
PALMERSTON, H.T.J.-ENG. STATESM-		1784
PAOLI, PASQUALE-CORSICAN PATRIOT-		1726
PAPIN, DENIS-FR. PHYSICIAN ---		1647
PARACELSUS-SWISS ALCHEMIST-		1493
PARDOE, JULIA-ENG. AUTHORESS-		1806
PARIS, LOUIS A.F.-FR. PRINCE ---		1838
PARK, MUNGO-SCOT. TRAVELER-		1771
PARKER, THEODORE-AM. THEOLOGIAN-		1810
PARKMAN, FRANCIS-AM. HISTORIAN-		1823
PARNELL, CHAS. S.-IRISH PATRIOT-		1846
PARR, CATHARINE-QU. HENRY VIII-		1509
PARROTT, ROBT. P.-AM. INVENTOR-		1804
PARRY, SIR WM.-ENG. EXPLORER-		1790
PARSONS, THEOPH.-AM. JURIST ---		1750
PARSONS, THEOPH.- " " ---		1797
PARTON, JAS.-AM. AUTHOR ---		1822
PASCAL, BLAISE-FR. PHILOSOPHER-		1623
PATRICK, ST.-APOSTLE OF IRELAND-		372



WILLIAM T. SHERMAN.

NAME	OCCUPATION	BORN
PATI, ADELINA-SP. OPERATIC SINGER-		1843
PAUL, ST.- APOSTLE -----	D.,	65
PAUL I.- ROMAN PONTIFF-	D.,	767
PAUL II.- " "	D.,	1471
PAUL III.- " "	D.,	1549
PAUL IV.- " "	D.,	1559
PAUL V.- " "	D.,	1621
PAUL I.- RUSSIAN EMPEROR --		1754
PAUL DING, JAS. K.- AM. AUTHOR --		1779
PAUSANIAS- SPARTAN GEN.-	B.C.	468
PAXTON, SIR JOS.- ENG. ARCHITECT-		1803
PAYNE, JNO. H.- AM. DRAMATIST --		1792
PEABODY, GEO.- AM. PHILANTHROP-		1795
PEALE, REMBRANDT- AM. PAINTER-		1778
PEDRO I.- EMPEROR OF BRAZIL --		1798
PEDRO II.- " " ---		1825
PEEL, SIR ROBT.- ENG. STATESM-		1788

CAPTAIN JOHN SMITH.

PIERCE, BEN. J.- AM. MATHEMATICIAN-		1809
PELLICO, SILVIO- ITAL. PATRIOT ---		1789
PEMBERTON, J.C.- CONFED. GEN'L --		1814
PENN, WM.- ENG. QUAKER ----		1644
PEPIN (THE SHORT)- FR. KING ----		714
PEPYS, SAM'L- ENG. AUTHOR ---		1632
PERCIVAL, JAS. G.- AM. POET ---		1795
PERCY, THOS.- ENG. AUTHOR ---		1728
PERGOLESI, G.B.- ITAL. COMPOSER-		1710
PERICLES- ATHENIAN STATES'N-	B.C.	495
PERRY, OLIVER H.- AM. COMMODORE-		1785
PERSIUS- ROMAN SATIRIST ---		34
PESTALOZZI, JOHANN- SWISS EDUCATOR-		1745
PETER, ST.- APOSTLE -------	D.,	66
PETER I. (THE GREAT)- CZAR OF RUSSIA-		1672
PETER (THE HERMIT)- FR. MONK-	D.	1115

SYDNEY SMITH.

PETRARCH, F.P.- ITAL. POET ---		1304
PHELPS, ELIZABETH S.- AM. AUTHORESS-		1815
PHIDIAS- GREEK SCULPTOR ---	B.C.	490
PHILIP II.- KING OF MACEDONIA-	B.C.	382
PHILIP II.- KING OF SPAIN ----		152[illegible]
PHILIP III.- " " ----		157[illegible]
PHILIP IV.- " " ----		160[illegible]
PHILIP V.- " " ----		168[illegible]
PHILIP II.- KING OF FRANCE ---		1165
PHILIP III.- " " ----		1245
PHILIP IV.- " " ----		1268
PHILIP VI.- " " ----		1293
PHILLIPS, WENDELL- AM. ORATOR ---		1811
PHOCION- ATHENIAN STATESMAN-	B.C.	402
PIERCE, FRANKLIN- 14TH PRES. U.S.-		1804
PILATE, PONTIUS- GOV. OF PALESTINE-	D.	38
PINCKNEY, CHAS. C.- AM. STATESMAN-		1746
PINDAR- GREEK LYRIC POET ---	B.C.	520
PINKNEY, WM.- AM. ORATOR ----		1764

NAME	OCCUPATION	BORN

TOBIAS SMOLLETT.

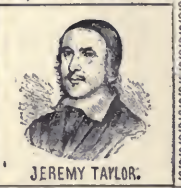
PISISTRATUS- TYRANT OF ATHENS-	B.C.	612
PITMAN, ISAAC- ENG. INVENT. OF PHONE-		1813
PITT, WM.- ENG. STATESMAN ---		1759
PIUS I.- ROMAN PONTIFF ---	D.,	157
PIUS II.- " " ---	D.,	1464
PIUS III.- " " ---	D.,	1503
PIUS IV.- " " ---	D.,	1565
PIUS V.- " " ---	D.,	1572
PIUS VI.- " " ---	D.,	1799
PIUS VII.- " " ---	D.,	1823
PIUS VIII.- " " ---	D.,	1830
PIUS IX.- " " ---	D.,	1878
PIZARRO, FRANCISCO- CONQ. OF PERU-		1475
PLATO- GREEK PHILOSOPHER-	B.C.	42[illegible]
PLINY (ELDER)- ROM. NATURALIST-		23
PLINY (YOUNGER)- ROM. AUTHOR ---		61
PLUTARCH- GREEK BIOGRAPHER-		50
POE, EDGAR ALLAN- AM. AUTHOR --		1809
POLK, JAS. K.- 11TH PRES. U.S.--		1795
POLLOK, ROBT.- SCOT. POET ----		1798
POLO, MARCO- VENETIAN TRAVELER-		1254
POMPADOUR, JEAN- MISTRESS LOUIS XV-		1721
POMPEY- ROMAN GENERAL --	B.C.	106
PONCE DE LEON- SP. DISCOV. OF FLORIDA-		1460

ROBERT SOUTHEY.

POPE, ALEXANDER- ENG. POET-		1688
PORTER, DAVID- AM. COMMODORE-		1780
PORTER, FITZ JOHN- AM. GENERAL-		1823
PORTER, JANE- ENG. NOVELIST ---		1776
POUSSIN, NICHOLAS- FR. PAINTER-		1594
POWELL, MAJ. J.W.- AM. ETHNOLOGIST-		1834
POWERS, HIRAM- AM. SCULPTOR ---		1805
PRAXITELES- GREEK SCULPTOR	B.C.	363
PRENTICE, GEO. D.- AM. JOURNALIST-		1802
PRESCOTT, WM. H.- AM. HISTORIAN-		1796
PRICHARD, JAS. C.- ENG. SCIENTIST-		1786
PRIEST[illegible], JOS.- ENG. PHILOSOPHER-		1733
PRIOR, MATTHEW- ENG. POET ----		1664
PROCTOR, BRYAN W.- ENG. POET-		1790
PROUT, FATHER- IRISH WRITER-		1805
PTOLEMY I.- KING OF EGYPT-	B.C.	367
PTOLEMY- GREEK ASTRONOM.-	FL.,	B.C.
PULASKI, COUNT- POLISH PATRIOT-		1747
PUTNAM, ISRAEL- AM. GENERAL ---		1718
PYRRHO- GREEK PHILOSOPHER-	B.C.	360
PYTHAGORAS ---	FL.,	B.C.
QUINCY, JOSIAH- AM. ORATOR ---		1744
QUINTILIAN- ROM. RHETORICIAN-		42

EDMUND SPENSER.

NAME	OCCUPATION	BORN
RABELAIS, FRANC.- FR. SATIRIST ---		1495
RACHEL, ELIZA F.- FR. ACTRESS ---		1820
RACINE, JEAN- FR. DRAMATIST ---		1639
RADCLIFFE, ANN- ENG. NOVELIST ---		1764
RAGLAN, JAS. H.- ENG. GENERAL ---		1788
RALEIGH, SIR WALTER- ENG. NAVIG.-		1552
RAMEAU, JEAN P.- FR. COMPOSER-		1683
RAMSAY, ALLAN- SCOT. POET ---		1685
RAMSAY, DAVID- AM. HISTORIAN ---		1749
RANDOLPH, JOHN- AM. ORATOR ---		1773
RAPHAEL- ITAL. PAINTER -----		1483
RAYMOND, H.J.- AM. JOURNALIST --		1820
REAL, THOS. FIELD- AM. POET ----		1[illegible]2
READE, CHAS.- ENG. NOVELIST ----		1814
REAUMUR, R.A.F.- FR. PHYSICIST --		1683
RECAMIER, JEANNE- FR. BEAUTY ---		1777
REEVES, SIMS- ENG. SINGER ----		1822
REGULUS, MARC. A.- ROM. GEN'L-	B.C.	250
REID, MAYNE- IRISH- AM. NOVELIST-		1818
REID, THOS.- SCOT. METAPHYSICIAN-		1710
REMBRANDT, PAUL- DUTCH PAINTER-		1607
RENAN, JOS. E.- FR. PHILOLOGIST --		1823

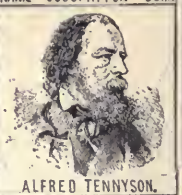


JEREMY TAYLOR.

RETZ, JEAN F.- FR. CARDINAL ----		1614
REVERE, PAUL- AM. PATRIOT ----		1735
REYNOLDS, SIR JOSHUA- ENG. PAINTER-		1723
RICHARD I.- KING OF ENGLAND ---		1157
RICHARD II.- " " ---		1366
RICHARD III.- " " ---		1452
RICHARDSON, SAM'L- ENG. NOVELIST-		1689
RICHELIEU, A.J.- FR. STATESMAN-		1585
RICHTER, J.P.F.- GER. AUTHOR ---		1763
RIENZI, NICOLA G.- ROM. ORATOR --		1313
RISTORI, ADELAIDE- ITAL. ACTRESS-		1821
RITTENHOUSE, D.- AM. ASTRONOMER-		1732
ROBERT I.- DUKE OF NORMANDY-	D.,	1035
ROBERT I.- KING OF SCOTLAND ----		1274
ROBERT II.- " " ---		1316
ROBERT, LOUIS L.- FR. PAINTER ---		1794
ROBESPIERRE, M.- FR. REVOLUTIONIST-		1758
ROCHAMBEAU, J.B.D.- FR. MARSHAL-		1725

ZACHARY TAYLOR.

ROONEY, GEO. B.- ENG. ADMIRAL ---		1718
ROEBLING, JOHN A.- AM. ENGINEER-		1806
ROGERS, SAM'L- ENG. POET ----		1763
ROLAND, MME.- FR. GIRONDIST ---		1754
ROLLIN, CHAS.- FR. HISTORIAN ---		1661
ROMULUS- FOUNDER OF ROME-	FL.,	B.C.
ROSA, SALVATOR- ITAL. PAINTER-		1615
ROSCIUS, Q.- ROM. ACTOR-	D.,	B.C.
ROSECRANS, WM. S.- AM. GEN'L-		1817
ROSS, SIR JOHN- BRIT. ARC. EXPLOR.-		1777
ROSSINI, G.- ITAL. COMPOSER ---		1792
ROTHSCHILD, M.A.- AM. BANKER-		1743
ROUSSEAU, JEAN J.- FR. AUTHOR ---		1712
RUBENS, PETER P.- FLEM. PAINTER-		1577
RUDOLPH I.- GER. EMPEROR ---		1218
RUDOLPH II.- " " ---		1552
RUMFORD, BENJ. T.- AM. PHILOSPR-		1753
RUSH, BENJ.- AM. PHYSICIST ---		1745
RUSKIN, JOHN- ENG. ART WRITER-		1819
RUSSELL, JOHN- ENG. STATESMAN-		1792



ALFRED TENNYSON.

RUSSELL, WM.- ENG. PATRIOT ---		1639
RUTLEDGE, JOHN- AM.- STATES'N-		1739
RUYTER, MICHAEL-DUTCH ADMIRAL-		1607
SACKVILLE, GEO.- ENG. STATESMAN-		1716
SAINT CLAIR, ARTHUR- AM. GEN'L-		1734
SAINTE-BEUVE, C.A.- FR. POET ----		1804
SAINT PIERRE, JACQ.- FR. AUTHOR-		1737
SAINT SIMON, C.H.- FR. PHILOS'R-		1760
SALADIN- SULTAN OF EGYPT --		1137
SALISBURY, ROBT. A.T.- ENG. STATE-		1830
SALLUST- ROM. HISTORIAN-	B.C.	86
SALVINI, SIGNOR- ITAL. ACTOR ---		1830
SAMUEL- ISRAELITE JUDGE-	B.C.	1170
SANTA ANNA- MEX. GENERAL ---		1798
SAPPHO- GREEK POETESS-	FL.,	B.C.
SAUL- FIRST KING OF ISRAEL-	D.,	B.C.
SAVONAROLA, G.- ITAL. REFORMER-		1452
SAXE, HERMANN M.- FR. MARSHAL-		1696
SAXE, JOHN G.- AM. POET ----		1816
SCALIGER, JULIUS C.- ITAL. CRITIC-		1484
SCHELLING, F.W.J.- GER. PHILOS'R-		1775

WILLIAM MAKEPEACE THACKERAY.

SCHILLER, JOHANN- GER. POET ---		1759
SCHLEGEL, AUGUST W.- GER. POET-		1767
SCHLEGEL, KARL W.- GER. SCHOLAR-		1772
SCHLOSSER, FRIED'H- GER. HISTORIAN-		1776
SCHOEFFER, PETER- GER. PRINTER-		1430
SCHOFIELD, JOHN M.- AM. GENERAL-		1831
SCHOOLCRAFT, HEN.- AM. ETHNOLOGIST-		1793
SCHOPENHAUER, ARTH.- GER. PHILOS'R-		1788
SCHUBERT, FRANZ- GER. COMPOSER-		1797
SCHURZ, CARL- GER.-AM. STATES'N-		1829
SCHUYLER, PHILIP- AM. GENERAL ---		1733
SCHWANTHALER, M.- GER. SCULPT-		1[illegible]3
SCHWARTZ, BERTH.- GER. MONK-	FL.	1340
SCHWEINFURTH, G.A.- GER. TRAVELER-		1836
SCIPIO, PUBLIUS C.- ROM. GEN'L-	B.C.	234
SCOTT, SIR WALTER- SCOT. NOVELIST-		1771
SCOTT, WINFIELD- AM. GENERAL ---		1786
SEBASTIAN, DOM.- KING OF PORTUGAL-		1554
SEDGWICK, CATHARINE M.- AM. AUTHOR-		1789
SENECA, LUCIUS A.- ROM. PHILOSPR-	D.,	65
SENNACHERIB- ASSYRIAN KING-	FL.,	B.C.
SERGIUS I.- ROM. PONTIFF ----	D.,	701
SERGIUS II.- " " ---	D.,	847

JAMES THOMSON.

NAME OCCUPATION BORN
SERGIUS II.- ROM. PONTIFF-D., 912
SERGIUS IV- " " D., 1012
SEVIGNE, MARIE-FR. AUTHORESS --- 1626
SEWARD, WM.H.-AM.STATESMAN - 1801
SEYMOUR, HORATIO- " " 1811
SHAFTESBURY-ENG. " " 1621
SHAKSPEARE, WM.-ENG. DRAMATIST- 1564
SHAW, HENRY W.-AM. HUMORIST --- 1818
SHEIL, RICH'D L.-IRISH ORATOR --- 1791
SHELLEY, PERCY B.-ENG. POET ---- 1792
SHERIDAN, FAN.-AM. GENERAL - 1831
SHERIDAN, RICH'D B.-IRISH ORATOR-1751
SHERMAN, JOHN-AM. STATESMAN - 1823
SHERMAN, ROGER-" " 1721
SHERMAN, WM.T.-AM. GENERAL - 1820
SIDONS, SARAH-ENG. ACTRESS --- 1755
SIDNEY, ALGERNON-ENG. STATESM'N - 1622
SIDNEY, SIR PHILIP-ENG. AUTHOR --- 1554
SIGISMUND- GERMAN EMPEROR --- 1361
SIGISMUND I.-KING OF POLAND-- 1466

THOMAS A. EDISON.

SIGOURNEY, MRS.-AM. POETESS --- 1791
SILLIMAN, BEN.I.-AM. NATURALIST- 1779
SIMMS, WM.G.-AM. NOVELIST --- 1806
SIMON, JULES-FR. STATESMAN - 1814
SIXTUS I.- ROM. PONTIFF --- D.,
SIXTUS II.- " " --D., 258
SIXTUS III.- " " --D., 440
SIXTUS IV.- " " --D., 1484
SIXTUS V.- " " --B., 1590
SLOWACKI, JULIUS-POLISH POET- 1809
SMITH, ADAM-SCOT. POLIT. ECON'ST- 1723
SMITH, GERRIT-AM. PHILANTHR'ST- 1797
SMITH, JOHN, A.M.-ENG. EX. 1579
SMITH, JOS.- FOUND. MORMONISM- 1805
SMITH, SEBA-AM. AUTHOR --- 1792
SMITH, SYDNEY-ENG. AUTHOR - 1771
SMOLLET, TOBIAS G.-SCOT NOVELIST-1721
SOCRATES-GREEK PHILOSOPHER-B.C.470
SOLIMAN II.-SULTAN OF TURKEY- 1494
SOLOMON-KING OF ISRAEL-B.C. 1033
SOLON-ATHENIAN LAW-GIVER-B.C. 638

TURGOT.

SONTAG, HENRIETTE-GER. VOCALIST- 1806
SOPHOCLES-GREEK TRAG. POET-B.C. 495
SOUTHEY, ROBT.-ENG. POET ---- 1774
SOUTHWORTH, EMMA-AM. NOVEL'T- 1818
SPARKS, JARED-AM. HISTORIAN - 1789
SPEKE, JOHN H.-ENG. EXPLORER - 1827
SPENCER, HERBERT-ENG. PHILOS. - 1820
SPENSER, EDMUND-ENG. POET-- 1553
SPINOZA, BENEDICT-DUTCH PHILOS.- 1632
SPURGEON, CHAS. H.-ENG. DIVINE - 1834
STAEL-HOLSTEIN, A.L.-FR. AUTHORESS-1766
STANHOPE, H.-ENG. HISTORIAN - 1805
STANLEY, HENRY M.-AM.-AF. EXPLOR.-1840
STANTON, EDW.M.-AM. STATES. - 1814
STEDMAN, EDM.C.-AM. POET -- 1833
STEELE, SIR RICH'D-ENG. ESSAYIST- 1671
STEPHEN I.- ROM. PONTIFF-D., 257
STEPHEN II.- " " D., 752
STEPHEN III.- " " D., 757
STEPHEN IV.- " " D., 772
STEPHEN V.- " " D., 817
STEPHEN VI.- " " D., 891

NAME OCCUPATION BORN
STEPHEN VII.-ROM. PONTIFF-D., 897
STEPHEN VIII.- " " D., 931
STEPHEN IX.- " " D., 942
STEPHEN X.- " " D., 1058
STEPHENS, ALEX. H.-AM. STATES'N - 1812
STEPHENSON, GEO.-ENG. ENGINEER - 1781
STERLING, JOHN-ENG. ESSAYIST --- 1806
STERNE, LAURENCE-ENG. HUMORIST --- 1713
STEUBEN, BARON-GER. AM. GEN'L --- 1730
STEVENS, THAD.-AM. ABOLITIONIST - 1793
STEWART, A.T.- AM. MERCHANT --- 1802
STODDARD, RICH'D H.-AM. POET --- 1825
STORY, JOS.- AM. JURIST ---- 1779
STORY, WM.W.-AM. SCULPTOR --- 1819
STOWE, HARRIET B.-AM. NOVELIST - 1812
STRABO - GREEK GEOGRAPHER -- B.C. 54
STRAFFORD, THOS.W.-ENG. STATES'N - 1593
STUART, GILB'T C.-AM. PAINTER --- 1756
STUYVESANT, PETER-GOV. NEW NETH. 1602
SUE, EUGENE-FR. NOVELIST ---- 1804
SULLA-ROM. GENERAL -- B.C. 138
SUMNER, CHAS.-AM. STATESMAN - 1811
SURREY, HENRY H.- ENG. POET --- 1516
SWEDENBORG, EMANUEL-SWED. PHILOS. 1688
SWIFT, JONATHAN-IRISH DIVINE --- 1667

WILLIAM TYNDALE.

SWINBURNE, ALGER C.-ENG. POET - 1837
SYLVESTER I.- ROM. PONTIFF-D., 335
SYLVESTER II.- " " D., 1003
TACITUS, CAIUS C.-ROM. HISTORIAN- 55
TAINE, NIPP. A.-FR. AUTHOR ---- 1828
TALBOT, WM. H. F.-ENG. AUTHOR --- 1800
TALLEYRAND-PERIGORD-FR. STATES. 1754
TALMAGE, THOS. D.-AM. DIVINE --- 1832
TAMERLANE-ASIATIC CONQUEROR - 1336
TANY, ROGER B.-AM. JURIST --- 1777
TARQUINIUS, L.-KING OF ROME-B.C. 495
TASMAN, ABEL J.-DUTCH NAVIGAT.-1600
TASSO, TORQUATO-ITAL. POET --- 1544
TAYLOR, BAYARD-AM. AUTHOR --- 1825
TAYLOR, JEREMY-ENG. AUTHOR --- 1613
TAYLOR, THOS.-ENG. SCHOLAR --- 1758
TAYLOR, ZACHARY-12TH PRES. U.S.-1784
TELL, WILHELM-SWISS NERO - D.-1354
TEMPLE, SIR WM.-ENG. STATES'N- 1628
TENIERS, DAVID-FLEM. PAINTER --- 1610
TENNYSON, ALFRED-ENG. POET -- 1809
TERENCE - ROM. COMIC POET - B.C. 195
TERTIUS, ALFRED-ROM. GENERAL - 1827
TERTULLIAN-LAT. CH. FATHER -- 150

MARTIN VAN BUREN.

NAME OCCUPATION BORN
TETZEL, JOHANN-GER. MONK --- 1460
THACKERAY, WM.M.-ENG. NOVELIST- 1811
THALBERG, SIGISM'D-SWISS PIANIST- 1812
THALES-GREEK PHILOSOPHER- B.C. 635
THEMISTOCLES-ATHENIAN GEN'L B.C. 514
THEOCRATUS-GR. PASTORAL POET-FL. 275
THEODORIC-KING OF OSTROGOTHS --- 455
THEODOSIUS, FLAV.-ROM. EMPER'R- 346
THEOPHRASTUS-GREEK PHILOS'R - 372
THIERRY, JACQ. N. A.-FR. HISTORIAN- 1795
THUCYDIDES-GREEK HISTORIAN - 471
THOMAS, GEO. H.-AM. GENERAL - 1816
THOMSON, JAS.- SCOT. POET --- 1700
THORWALDSEN, A.B.-DANISH SCULP.- 1770
THUCYDIDES-GREEK HISTORIAN-B.C. 471
TIBERIUS - ROM. EMPEROR- B.C. 42
TILDEN, SAMP'L J.-AM. STATESMAN-1814
TINTORETTO-ITAL. PAINTER ---- 1512

QUEEN VICTORIA.

TITIAN-ITAL. PAINTER ----1477
TITUS - ROMAN EMPEROR-- 40
TOBIN, JOHN-ENG. DRAMATIST-1770
TOCQUEVILLE, A.C.-FR. STATES'N-1805
TOOKE, JOHN H.-ENG. PHILOLOGIST-1736
TORRICELLI, EVANG.-ITAL. PHILOS.-1608
TRAJAN - ROM. EMPEROR ---- 52
TROLLOPE, ANTHONY-ENG. NOVELIST-1815
TRUMBULL, JOHN-AM. PAINTER-1756
TRUMBULL, JONATHAN-AM. STATES.-1740
TUPPER, MARTIN F.-ENG. AUTHOR - 1810
TURKEY, KING OF-SEE ABDUL-HAMID II.
TURGOT, A.R.J.-FR. STATES'N --1727
TURNER, JOS. W. M.-ENG. PAINTER-1775

GEORGE WASHINGTON.

TWEED, WM. M.-AM. POLITICIAN - 1823
TYLER, JOHN-10TH PRES. U.S.-- 1790
TYNDALE, WM.-ENG. BIBLE TRANSLATOR-14
TYNDALL, JOHN-IRISH SCIENTIST-1820
URBAN I.- ROM. PONTIFF-D., 230
URBAN II.- " " D.,1099
URBAN III.- " " D.,1187
URBAN IV.- " " D.,1264
URBAN V.- " " D.,1370
URBAN VI.- " " D.,1389
URBAN VII.- " " D.,1590
URBAN VIII.- " " D.,1644
USNER, JAS.-IRISH THEOLOGIAN - 1580
UTRECHT, ROMAN CATH. PRIMATE-1595
VALENS, FLAVIUS-ROM. EMPEROR- 328
VALENTINE-ROM. PONTIFF-D., 827
VALERIAN-ROM. EMPEROR-D., 260
VAN BUREN, MARTIN-8TH PRES. U.S.-1782

DANIEL WEBSTER.

VANCOUVER, GEO.-ENG. NAVIGAT.--1756
VANDERBILT, CORNEL.-AM. CAPITALIST-1794
VANDIEMEN, ANTHY.-DUTCH NAVIGAT.-1593
VANDYKE, ANTHONY-FLEM. PAINTER-1599
VANE, SIR HENRY-ENG. STATESMAN-1612
VAN RENSSELAER, S.-AM. " " 1764
VASSAR, MATT.-FOUND. VASSAR COLL.-1792
VELASQUEZ, DIEGO-SPAN. PAINTER --1599
VERDI, GIUSEPPE-ITAL. COMPOSER --1814
VESPASIAN, T.F.-ROM. EMPEROR --- 9
VESPUCCI, AMERIGO-ITAL. NAVIGATOR-1451
VICTOR I.- ROM. PONTIFF---- D., 202
VICTOR II- " " " ---D.,1057
VICTOR III- " " " ---D.,1087
VICTOR EMMANUEL II.-KING OF SARDINIA-1759
VICTORIA-QUEEN OF ENGLAND--- 1819
VINCENT DE PAUL, ST.-FR. REFORMER--1576
VINCENT, JOHN H.-AM. CLERGYMAN-1832
VIRGIL - LAT. EPIC POET ----- B.C. 70
VOLTA, ALESSANDRO-ITAL. NAT. PHILOS-1745
VOLTAIRE, F.M.A.-FR. PHILOSOPHER-1694
VOORHEES, DAN'L W.-AM. STATES.-1827
VON MOLTKE, H.K.B.-GER. MARSHAL - 1800

CARDINAL WOLSEY.

WADDINGTON, WM.H.-FR. STATES.- 1826
WAGNER, RICH'D-GER. COMPOSER-1813
WAITE, MORRISON R.-AM. JURIST --1816
WALKER, JOHN-ENG. LEXICOGRAPHER-1732
WALLACE, SIR WM.-SCOT. PATRIOT-1270
WALLACE, WM.V.-IRISH COMPOSER-1815
WALLENSTEIN, A.W.E.-AUSTR. GEN'L-1583
WALPOLE, HORACE-ENG. AUTHOR --1717
WALTON, IZAAK-ENG. WRITER --1593
WARD, ARTEMAS-AM. GENERAL --1727
WARNER, CHAS. D.-AM. HUMORIST--1829
WARREN, JOS.-AM. PATRIOT ---- 1741
WARWICK, RICH'D N.-ENG. WARRIOR-1420
WASHINGTON, GEO.- 1ST PRES. U.S.-1732
WATT, JAMES-SCOT. INVENTOR --1736
WATTS, ISAAC-ENG. SACRED POET--1674
WAYNE, ANTHONY-AM. GENERAL --1745
WEBER, KARL M.-GER. COMPOSER --1786
WEBSTER, DANIEL-AM. STATESMAN-1782
WEBSTER, NOAH-AM. LEXICOGRAPHER-1758
WEED, THURLOW-AM. JOURNALIST-1797
WELLINGTON, ARTHUR, DUKE OF-ENG. --1769
WELLS, SAM'L R.-AM. PHRENOLOGIST-1820
WESLEY, CHAS.-ENG. DIVINE ---1708

WILLIAM WORDSWORTH.

NAME OCCUPATION BORN
WESLEY, JOHN-ENG. DIVINE ------ 1703
WEST, BENJ.- AM. PAINTER ---- 1738
WHEELER, WM. A.-AM. STATESMAN- 1819
WHEWELL, WM.-ENG. PHILOS'R --- 1794
WHITE, ANDREW D.-AM. SCHOLAR-1832
WHITE, RICH'D G.-AM. AUTHOR ---1822
WHITEFIELD, GEO.-ENG. DIVINE ---- 1714
WHITMAN, WALT.-AM. POET ------1819
WHITNEY, ELI-AM. INVENTOR ---- 1765
WHITTIER, JOHN G.-AM. POET ---1807
WIELAND, CHAS. M.-GER. POET ---1733
WILBERFORCE, WM.-ENG. STATES'M - 1759
WILLIAM I.-KING OF ENGLAND--- 1027
WILLIAM I.-GER. EMPEROR ----1797
WILLIAMS, ROGER-FOUND. RHODE ISLAND-1599
WILLIS, NATH. P.-AM. JOURNALIST---1806
WILMOT, DAVID-AM. STATESMAN --1814
WILSON, HENRY-AM. POLITICIAN --1812
WIRT, WM.-AM. AUTHOR ---- 1772
WOLCOTT, JOHN-ENG. SATIRIST 1738
WOLFE, CHAS.-IRISH POET ----1791
WOLFE, JAS.-ENG. GENERAL ----1726

JOHN WYCLIFFE.

WOLSELEY, SIR G.W.-ERIT. GEN. --1833
WOLSEY, THOS.- ENG. CARDINAL-1471
WOODWORTH, SAM'L-AM. POET ---1785
WORCESTER, EDW. S.-ENG. INVENTOR-1601
WORCESTER, JOS. E.-AM. LEXICOGR'R-1784
WORDSWORTH, WM.-ENG. POET ---1770
WREN, SIR CHRISTOPH.-ENG. ARCHITECT-1632
WRIGHT, SILAS-AM. STATESMAN - 1795
WYCLIFFE, JOHN-ENG. REFORMER-1324
XAVIER, FRANCIS ST.-FR. JESUIT--1506
XENOPHON, GREEK HISTORIAN - B.C. 444
XERXES-KING OF PERSIA --D., B.C. 465
XIMINES, FRANCISCO-SPAN. PRELATE-1436
YALE, ELIHU-FOUND. YALE COLL.-- 1648
YANCEY, WM.L.-AM. POLITICIAN --1814
YONGE, CHARLOTTE M.-ENG. WRITER-1823
YORKE, CHAS.-ENG. STATESMAN --1722
YOUNG, BRIGHAM-PRES. MOR. CH.-1801

BRIGHAM YOUNG.

YOUNG, CHAS. A.-AM. SCIENTIST--1834
YOUNG, EDWARD-ENG. POET --- 1684
YOUNG, THOS.- ENG. PHILOS'R --1793
ZECHARIAH-HEBREW PROPHET-FL. B.C.520
ZELOTTI, BATTISTA-ITAL. PAINTER- 1532
ZENO-FOUND. SCH. OF STOICS- B.C. 355
ZENO-GREEK PHILOSOPHER --- 490
ZENO-EMPEROR OF THE EAST- D.,491
ZENOBIA-QUEEN OF PALMYRA-D.,275
ZEPHANIAH-HEB. PROPHET-FL.-B.C. 630
ZEUXIS-GREEK PAINTER ---- 450
ZHUKOVSKY, RUSSIAN POET --- 1783
ZIMMERMAN, J.G.-SWISS PHILOS-1728
ZINZENDORF, N.L.-GER. DIVINE--1700
ZISKA, JOHN-BOHEMIAN GEN.--1360
ZOLA-FR. APOSTLE OF REALISM-1840
ZOLLICOFFER, F.K.-AM. GEN'L-1812
ZOROASTER-PER. PHILOS. - FL., B.C.1500
ZUCCARO, FERD.-ITAL. PAINTER-1543
ZWINGLE, ULRICH-SWISS REFORM.-1484

AFTERNOON RECEPTION.- The tea or afternoon reception, is a very popular entertainment for ladies exclusively. The hours are from 4 to 6 P.M. The refreshments are light, and all ostentatious display is avoided. The invitation is printed on large-sized visiting cards.

Mrs. Frank Saunders,
Wednesday, March 2, 19—,
1763 Olive St.
from 4 until 6 o'clock.

BAL MASQUE.- Invitations to a bal masque should be elegant in design, and read as follows:

Mask.

Mrs. and Mrs. L. D. Mann
request the pleasure of your
company in fancy dress
on
Monday evg., October 29th,
at eight o'clock.

R.S.V.P. 963 Oak St.

BALL.- Balls being of a public nature, and generally held under the auspices of a club or society, the invitation should read as follows:

The pleasure of your company is requested
at a
Hop
at the
Palace Hotel
on
Thursday evening
September 9, 19—, at nine o'clock.

BALL, REGIMENTAL.- Invitations by a regiment to a ball to be given by the officers, are worded as follows:

Lieut. McClurg and the Officers of the
First Regiment California N.G.
request the pleasure of Mr. and
Mrs. Smith's company on the
29th of January, at 9 o'clock.
Regimental Armory, Olive St.

BALL, FANCY.—

The pleasure of Mrs. Girard's company is requested to a costume ball
at Mrs. Edgar Allen's, on the 10th of
June, at nine o'clock. Fancy dress
is especially requested.
Dancing will begin at 10 o'clock.
911 Grand Avenue, June 2, 19—.

REPLIES TO ABOVE.

Favorable.

Mr. Gerard accepts with pleasure the polite invitation for Thursday the 10th inst.
17 K St., June 7, 19—.

Unfavorable.

Mr. Gerard regrets that the recent death of a near relative will prevent his accepting any invitations for the present season.
17 K St., June 7, 19—.

BIRTHDAY PARTY, INVITATION TO.— A grand celebration is usually given in honor of a son's attainment to his majority. The form of invitation, on engraved card, is as follows:

Mrs. and Mrs. Chas. Marsh
request the pleasure of your
company,
Monday evening, June 29th,
at eight o'clock,
at the
21st Birthday Celebration
of their son,
Edward L. Marsh.
943 Olive St.

BREAKFASTS, INVITATIONS TO.— Invitations to breakfasts and suppers should be informal and written on correspondence cards, with crest or monogram on top left corner. The following is the form:

L. C. Mc. 294 Ninth St.

Breakfast.

Thursday at ten o'clock.
October 7th.
Mrs. L. A. Mitchell.

CARDS, VARIOUS KINDS AND USES.

AFTERNOON RECEPTION.

Mr. & Mrs. Abram Baker.
Wednesday, May 1, 19—.
From three till six o'clock.
673 Cleveland St.

BETROTHAL CARD.

It is customary among the Hebrews to announce betrothals, and either cards or notes may be used. The following is a good form:

Betrothed.
Mr. Henry Jacobs.
Miss Ella E. Strauss.
June 10, 19—.

DECORATOR AND PAPER HANGER.

Leland Stafford,
Decorator.

EVENING RECEPTION.

Mr. & Mrs. Wm. J. Bishop.
Wednesday Evening.
111 Sherry St.

INVITATIONS.

The proper size of invitation cards is about 3 by 4 inches.

Mr. & Mrs. Albert Corn request the pleasure of your company on Tuesday Evening, Jan. 1, 19—.
R.S.V.P. 71 Noe St.

Mr. & Mrs. A. Kuhring, at Home, Friday, May 19, 19—, from three to five o'clock. 18 Green St.

PHOTO ENGRAVED FROM PEN COPY MADE BY THE AUTHOR

INVITATIONS, CARDS, NOTES, ETC. CONTINUED.

CARDS, CONTINUED.

INVITATION, CONTINUED

Xenia Debating Club
.....requests the
pleasure of .....
company, on Friday evening
next, at eight o'clock.
The favor of an answer
is requested.

Mr. O. T. Rhodes
requests the pleasure of
Mr. Cox's company on Friday
evening, May 1, 19—,
to meet the President
of the United States.
Palmer House, Chicago.

St. Paul's Guilds,
of
St. Paul's Church.
The Rector, Wardens, and Vestrymen invite you to be present at the Guilds, on Founder's Day, Monday, April 17, 19—, at three o'clock.
77 Meridian St.

MEMORIAL CARD.

Memorial cards are sent to the friends of the deceased about a week after the funeral.

IN MEMORY OF
Eugene Bonelly,
Born May 3, 19—. Died June 10, 19—.
Asleep in Jesus.

MERCHANT TAYLOR.

HARRISON, CUBERT & CODY,
MERCHANT TAYLORS,
No. 133 Poplar Street.
LONG ESTABLISHED. ONLY THE BEST.

MOURNING CARD.

Mrs. Emily Allemands.
Hamilton Place.

PRESENTATION.

Miss Barfield sends her Christmas Greetings to Miss Austin, and requests her acceptance of the accompanying gift as a token of her esteem.
Christmas, 19—.

PROFESSIONAL CARD.

Drs. C. Montgomery, M. D.
1697 Valentine St.,
REFERENCE: Dr. A. S. Bond. Boston, Mass.

PUBLISHER'S CARD.

J. B. Somerville & Co.,
Publishers.
Western Agents Harper Bros.
S. W. Cor.
C and 6 Sts.
Denver, Col.

RECEPTION.

Reception,
On Thursday, June 3, 19—,
Day and Evening.

RECEPTION, INFORMAL.

Mr. & Mrs. Jane Conway
Wednesday Evenings.
769 Lick Ave.

TEACHER'S CARD.

Charles D. Meyers,
Department of Science.
Drake College, Des Moines, Iowa.

VISITING CARDS.

The chief uses of visiting cards are:

1. To announce a visitor's name.
2. To announce a return home.
3. To announce a departure from home.
4. To accompany a letter of introduction.
5. To represent the owner in making calls.
6. To make known one's name to a stranger.
7. To announce a guest's name at a reception.
8. To express congratulation and condolence.
9. To serve as a credential or certificate of authority.
10. As a substitute for a note of non-acceptance.

Miss Hayes.

Mr. B. Boodyfoondz.

The Misses Colby.

Lucy Borsell, M. D.

Mr. & Mrs. H. Roads.
Miss Roads.

Dr. & Mrs. J. B. Drivers.
Wednesday. Atlanta, Ind.

Arthur Brummitt.
D. H. Longton & Co.,
Chicago, Ill.

Mrs. W. A. Barrows.
Miss Barrows.
Tuesdays. 63 Bow Avenue.

Mrs. F. B. Boodyfoondz.
Five o'clock Tea.
Monday, May 6, 5-8.

INVITATIONS, CARDS, NOTES, ETC., CONTINUED.

CHILDREN'S PARTY.—

Master Harry Houser requests the pleasure of Miss Mellie Bond's company on St. Valentine's Day, from ten until four o'clock.

1797 Crawford Street, Feb. 10.

Miss Frixie Williams requests the pleasure of Master John Howard's company on Wednesday evening, October 10, from five to nine o'clock.

749 Lincoln Square.

COLLEGE ANNIVERSARY.—College and Society Anniversaries are subjects upon which engravers have almost exhausted their invention in making new forms. The invitations should be printed on a sheet of heavy, fine note-paper, bearing the monogram of the college at the top.

H.C.

The Honor of Your Company is requested at the JUNIOR EXHIBITION.

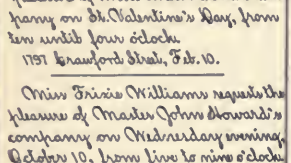
TO BE HELD AT THE 19—.

First Christian Church,

COR. COLLEGE AND MARKET STS.

Atlanta, Ga.,

Friday Eve., June 17, 19—, at eight o'clock.



CHRISTMAS DINNER, INVITATION TO.—

27 Silver St., Dec. 23, 19—.

My Dear Mr. Cox:

As I know you have no family claims upon you, I venture to hope you will join us on Wednesday to eat a Christmas dinner. You will meet all the "sisters and the cousins and the aunts," and a few bachelor friends, who are, like yourself, too far from home for a family party.

Hoping you have no other engagement, believe me, with the best wishes of the season,

Yours very truly,

Louie Goodykoontz.

25 Grove St., Dec. 24, 19—.

My Dear Miss Goodykoontz:

I accept with pleasure your kind invitation for Christmas Day; thanking you most earnestly for remembering my loneliness. I am sure that in your home circle I can forget for the time how far I am from "our folks," and I shall present myself punctually.

With warmest Christmas greetings,

Ever your friend,

Alfred Cox.

CRYSTAL WEDDING, INVITATION TO.—

Cards with a fine glass finish are used for invitations.

CRYSTAL WEDDING

1900. 1915.

Mr. and Mrs. Benjamin Harold

At Home,

Monday Evening, May 1, 1915,

at eight o'clock.

177 Oak Street. Memphis, Tenn.

CHINA WEDDING, INVITATION TO.—

The paper used for invitations should have a smooth, dead-white surface, resembling the surface of China-ware.

1900. CHINA WEDDING. 1920.

Mr. & Mrs. J. R. Hamilton

At Home,

Saturday Evening, May 25th,

Palo Alto, Cal.

DANCING, INVITATION.—

Mr. & Mrs. Monroe Manning's

COMPLIMENTS FOR

Monday Evening, Oct. 1, 19—.

DANCING.

REFRESHMENTS WILL BE SERVED AT TEN O'CLOCK.

DINNER, INVITATION TO.—

Mr. Eli Hunt requests the pleasure of Mr. Chas. Teel's company, at dinner, on Monday evening, May 10, at eight o'clock.

Arlington House.

Mr. Teel presents his kind regards to Mr. Hunt, and accepts, with pleasure, his polite invitation for Monday evening.

117 M St., May 8, 19—.

Mr. Teel regrets that a previously arranged business engagement will prevent his accepting Mr. Hunt's kind invitation for Monday evening.

117 M St., May 8, 19—.

DIAMOND WEDDING, INVITATION TO.—

There are but few persons who enjoy the happiness of celebrating the seventy-fifth anniversary of their marriage, but when such is possible, it should be observed with all the impressiveness the occasion demands. The invitations should be printed in clear letters on the heaviest and finest paper, with envelopes to match.

1900. SEVENTY-FIFTH ANNIVERSARY 1975.

MR. & MRS. ABSALOM COAN.

At Home,

Monday Afternoon and Evening,

October 26th.

DRIVE, INVITATION FOR.—

Will Miss Miller do Mr. Osborne the honor to accompany him in a drive to Golden Gate Park this afternoon? If so Miss Miller will state what hour will suit her convenience.:

Grand Hotel, Monday, June 15.

Miss Miller's compliments to Mr. Osborne; she accepts with pleasure his kind invitation for this afternoon.

If convenient, call at three o'clock.

79 M St., June 15.

Miss Miller regrets to state that an important engagement will prevent her accepting Mr. Osborne's kind invitation for this afternoon.

79 M St., June 15.

EVENING PARTY, INVITATION TO.—

Mrs. Walton's kind regards to Misses Cora and Emma Foster, and requests the pleasure of their company on Wednesday evening (Oct. 16) at eight o'clock.

243 Noe St., Oct. 12, 19—

Misses Cora and Emma Foster's compliments to Mrs. Walton; they accept with pleasure her kind invitation for Wednesday evening.

46 R St., Oct. 13, 19—.

Misses Cora and Emma Foster present their kind regards to Mrs. Walton. They regret that the illness of their little brother will prevent their accepting any invitations for the present.

46 R St., Oct. 13, 19—.

FAMILIAR NOTE.—

Friend Henry:

I shall have a few friends here to dinner on Thursday afternoon next, at five; will you oblige me by making one of the number?

Sincerely yours,

Albert Springer.

916 Massachusetts Ave.

October 3, 19—.

NOTES AND INVITATIONS, CONTINUED.

FESTIVAL, INVITATION TO.—

Fête Champêtre,
ON THE GROUNDS OF
CLARENCE MARTIN, ESQ.
Spring Valley,
Wednesday Afternoon, June 1, 19—.
ENTRANCE TICKET, 50 CTS.

FRIENDS, RECEPTION OF.—

MR. & MRS. M. T. MERRITT
Receive Friends,
Wednesday Evening, May 10th,
At 8 o'clock.

FUNERAL INVITATION.—When funeral invitations are issued, they may be either written or printed on note paper edged with black, or plain white paper may be used. Envelopes should correspond.

Yourself and family are respectfully invited to attend the funeral of

Mr. Caleb H. Goodrich

from the residence of his sister, Mrs. Emily Barnet, on Sunday the 3d inst., to leave the house at ten o'clock and proceed to St. John's Church.
Reading, Sept. 21st.

GARDEN PARTY, INVITATION TO.—

Elm Grove, June 3, 19—.

Mrs. Crowe requests the pleasure of Mr. Joseph George's company on Saturday (June 7th) at four o'clock, to a strawberry and cream party in her garden.

GERMAN, INVITATION TO.

Mrs. Howard's compliments to Mr. Longfellow, and would be pleased to have him join her German on Friday evening, Feb. 24th, at eight o'clock.
1771 W. 18th St., Feb. 20, 19—.

GIFT, NOTE TO ACCOMPANY.—

Will Miss Walton accept the accompanying package, as a token of the high esteem and regard of her sincere friend?
Horace Mann.
Indianapolis, Jan. 1st.

GIFT, WEDDING.—

Mr. Abraham Grover sends his compliments and best wishes to Miss Cora Goodykoontz, and begs that she will accept the accompanying trifle as a souvenir of his regard and desire for her future happiness.
34 Vernon St., June 10, 19—.

GOLDEN WEDDING, INVITATION TO.—
This should be printed on a sheet of gold paper.

1900 — 1950.
GOLDEN WEDDING.
Mr. & Mrs. A. E. Ensign's
COMPLIMENTS.
Will receive their friends at the residence of their son, E. Ensign,
FROM SIX UNTIL ELEVEN O'CLOCK,
Wednesday Evening, June 5, 1950.
R.S.V.P. 197 Pine Street.

HALLOWEEN, INVITATION.—

HALLOWEEN
Willie, Ambrose, and Cora Clement's
COMPLIMENTS FOR
Saturday Evening, October 31, 19—.
673 Peach Avenue.

HOP, INVITATION TO.—

GRAND CENTRAL HOTEL
Hop,
MONDAY EVENING, MARCH 31, 19—.
—COMPLIMENTARY—
Mr. .....,
Yourself and Ladies are Cordially Invited.
COMMITTEE OF ARRANGEMENTS:
A. C. Cox, W. R. Burton, A. T. Stewart, L. C. Mannon.

INVITATION, GENERAL STYLE.—This form may be varied to suit circumstances. Separate invitations should be sent to sons and daughters. (R.S.V.P.=Answer if you please).

Mr. and Mrs. John Doe request the pleasure of your company, Wednesday evening, October 27th, from eight to twelve o'clock.
179 Olive Street. R.S.V.P.

JUVENILE PARTY, INVITATION TO.—

Miss Emma, Charlotte,
and
Master Edward Otis
request the pleasure of your company, on
Wednesday evening, May 2d,
from 4 to 6 o'clock.
Punch and Judy half-past five.
576 Everett St.
R.S.V.P.

LAWN SOIREE, INVITATION TO.—

Mr. & Mrs. Geo. Bozell.
Mr. L. J. Bozell.

Request the pleasure of your company, at a Lawn Soiree, Saturday evening, from half-past seven to half-past ten o'clock, August 31, 19—, weather permitting.
R.S.V.P.

LAWN TENNIS PARTY, INVITATION.—

Atlanta, June 4, 19—.

Mr. Peter Laudig,
Dear Sir:
Will you give us the pleasure of your company and the benefit of your proficiency in a game of lawn tennis next Saturday afternoon? Our city guests will come down on the 2:30 train and find carriages to meet them. Hoping to welcome you amongst them, I am,
Very truly yours,
Laura Coan.

LEATHER WEDDING. (Print invitation on leather)

1900. LEATHER WEDDING. 1903.
Mr. & Mrs. Colton Moore.
AT HOME
Wednesday Evening, March 23, 1903.
1674 WALNUT STREET.

INVITATIONS, ETC., CONTINUED.

LUNCHEON PARTY, INVITATION TO.—

Mrs. Henry Lalor requests the pleasure of Mr. and Mrs. Guy Emery's company to luncheon on Monday (with invt.) at four o'clock.

January 10, 19—. 179 G St.

MARRIAGE ANNOUNCEMENT.—A marriage announcement is sometimes made by note or card after a wedding has taken place. With the following form may be enclosed a Reception Card:

Mr. and Mrs. Joseph Woodspoon,
Miss Edith Bonn,
Married,
Thursday, May eighth, 19—.

MARRIAGE NOTICE.— The wording of this depends upon circumstances. The following is the most common form, and may be modified to suit different tastes:

MARRIED.

LINCOLN—HARRISON.—In this city, at the residence of the bride's father, January 10, 19—, by the Rev. H. H. Blount, pastor of the First Christian Church, Mr. B. C. Lincoln and Miss Emma L. Harrison, daughter of Wm. Harrison, Esq., all of San Francisco.

MOTHER GOOSE PARTY, FOR CHILDREN.

16 Bonds St., May 1, 18—.

My Dear Mrs. Bond:

We are going to celebrate Edith's birthday by a Mother Goose party, and hope you will allow Mamie and Georgie to join their friends on Wednesday, the 23d of May, at five o'clock. Mrs. Simon has kindly undertaken to be Mother Goose and we want all the children to come in characters. Eddie will be Little Miss Muffits, and Willie, Little Boy Blue.

As I do not approve of late hours, supper will be at eight, and we will break up at ten.

Hoping to see your children with Edith's guests, I am,

Yours very truly,
L. C. Winters.

MUSICAL PARTY, INVITATION TO.— An invitation to a musical party should enclose a programme of the concert, if one is printed, and should read thus:

Mrs. Willingham requests the pleasure of Mr. and Mrs. Wills' company on Friday evening, October 17, at eight o'clock, to meet the members of the Fifth Ward Club.

667 Lake St.

NEWLY MARRIED COUPLE, Invitation to meet.

Mrs. Low Waite's compliments to Mr. and Mrs. Henry, and requests the pleasure of their company on Tuesday evening (October 16) at eight o'clock, to meet Mr. and Mrs. Sherman.

1617 G St., Oct. 14, 19—.

NEW YEAR CARD.—

Emma Southworth.

A HAPPY NEW YEAR.

PAPER WEDDING.—Print the invitation on paper.

SECOND ANNIVERSARY.
1900. 1902.

Mr. & Mrs. Horace Ralphs
at home,
Monday Evening, May 1, 1902
618 Sutter Street.

PARTY, INVITATION TO.—

Mr. and Mrs. Brooks request the pleasure of Mr. and Mrs. Barnes' company on Wednesday evening, August 10, 19—, at eight o'clock.

The Ferns. Soirée Dansante.
CARRIAGES ENTER EAST GATE. ANSWER TO BE SENT TO 79 NINTH ST.

PEARL WEDDING.—Presents consist of Pearls.

1900 THIRTIETH ANNIVERSARY 1930

MR. & MRS. RICHARD AMBROSE.
AT HOME.
Wednesday Evening, June 3, 1930.
912 PINE STREET.

PICNIC, INVITATION TO.—

Mrs. Shortle's compliments to Miss Hancock, and would be pleased to have her join a picnic party to White Sulphur Springs on Wednesday, July 10. Carriages start from Mrs. Shortle's at nine o'clock, and a place will be reserved for Miss Hancock.

R. S. V. P.

PRESIDENTIAL RECEPTION.—

The President of the United States requests the company of.....
.....at the reception of His Majesty the King of Denmark, on Friday evening, October 14, at nine o'clock.

Executive Mansion.

RECEPTION CARD, GENERAL FORM.

Mrs. Richard Roe,
at home,
Thursdays, from 4 to 7 P. M.
661 Wagner Square.

RIDE, INVITATION TO.—

Mr. Gibson presents his compliments to Miss McComb, and would be much pleased if she would accompany him in a drive to Coronoco Hills, this afternoon at 4 o'clock.

16 G St., June 4, 19—.

Miss McComb's compliments to Mr. Gibson, and accepts with pleasure his kind invitation for this afternoon.
77 Strawberry Hill

Miss McComb regrets that an important engagement will prevent her accepting Mr. Gibson's kind invitation for this afternoon.

RUBY WEDDING.—Gifts consist of Rubies.

1900 RUBY WEDDING. 1940

Mr. & Mrs. W. A. Bell
WILL RECEIVE THEIR FRIENDS AT THE
FORTIETH ANNIVERSARY
OF THEIR
MARRIAGE,
Thursday Evening, September 3, 1940.
SENTINEL PLACE.

INVITATIONS, CARDS, ETC., CONTINUED.

SILK WEDDING.— The invitations are to be printed on silk, and the gifts, silk articles.

1900. 1912.

SILK WEDDING

MR. & MRS. H. R. MUNCY,

Wednesday Evening, June 1, 1912.

Quincy, Illinois.

SILVER WEDDING.——Print invitation on silver paper, and make silver presents.

1900. 1925.

MR. & MRS. HENRY IMBODEN

Request the pleasure of your company at their

TWENTY-FIFTH WEDDING

ANNIVERSARY,

On Monday Evening, May 4, 1925.

No. 763 WEBER ST.

TIN WEDDING.—Print on tin-foil.

1900. 1910.

TENTH ANNIVERSARY.

Mr. & Mrs. F. M. Wolfe,

At Home,

Thursday Evening, July 3, 1910.

1674 Grote Place.

WALK, INVITATION TO.—

My Dear Miss Ella,—I find I shall have leisure this afternoon to accept as challenge from you for a walk to Woodward's Gardens. Can I have the pleasure of your society for so long a journey? If you are at liberty, I will call for you at three o'clock.

Yours very truly,

L. B. Goldsmith.

176 Eddy St., June 4, 19—.

My Dear Mr. Goldsmith,—When you call at three o'clock you will find me booted and capped for our long walk. Remember you are to be tired first.

Yours truly,

Ella Maxwell.

64 D St., June 4, 19—.

My Dear Mr. Goldsmith,—I am very sorry that a promised visit from my friend, Miss Osborn, will keep me at home this afternoon. Had I known of your leisure time, I should have invited her for tomorrow, but hope now that you will abandon the proposed walk, and join us at tea.

Yours, etc.

WEDDING, INVITATION TO.—

Rev. & Mrs. A. B. Ballard

invite you to be present

at the marriage of their daughter

Charlotte

with

Munford Harrison,

Wednesday Evening, May 4, 19—,

at seven o'clock.

First Baptist Church,

Corner Walnut and Barker Streets.

Cincinnati.

WEDDING RECEPTION.— The subjoined form is most suitable for written invitations. Besides the card of the bride and groom, a third card is sent to those who are desired to be present at the ceremony, containing the words "Ceremony at.....o'clock." Those who do not receive this card, of course attend only the reception.

Mr. & Mrs. John Cook

request the pleasure of Mr. &

Lovell's company at the wedding

reception of their daughter, on

Wednesday evening, June 4, from

eight until twelve o'clock.

1674 Green Street.

WEDDING, PRIVATE.—

149 D St., June 17, 19—

My Dear Mrs. Brandt:

On account of a recent death in Mr. McNeal's family, Jennie's wedding on the 23rd of June will be a private one, no cards sent out, and only relatives and intimate friends invited. Amongst the latter we hope to see you. The ceremony will be at St. Paul's Church, at 4 P. M.

Very truly your friend,

Annie Talbott.

WEDDING GIFT, NOTE TO ACCOMPANY.—

Mrs. William Throckmorton sends his compliments and best wishes to Miss Fanny Spencer, and hopes that she will accept the accompanying knife as a souvenir of his regards and desire for her future happiness.

367 Chestnut St., Oct. 10, 19—

WOODEN WEDDING.—

1900. FIFTH ANNIVERSARY. 1905.

MR. & MRS. WALTER STORY,

Wednesday Evening, June 1, 1905,

at eight o'clock.

No. 678 Presley Avenue.

WOOLEN WEDDING.

1900. 1907.

SEVENTH ANNIVERSARY.

MR. & MRS. H. H. HANFORD,

At Home,

Tuesday Evening, July 10, 1907.

298 Monroe Street.

PARTS OF A LETTER.

(DATE).
Washington, Jan. 1, 1900.
(COMPLIMENTARY ADDRESS).
DEAR NEW CENTURY,
(BODY OF LETTER).
We have long looked for thy wave to break upon the shore, and see thy shadow move over the dial plate of time. A general welcome from the multimillions of this great nation salutes thee, and bids thy predecessor a last farewell.
(COMPLIMENTARY CLOSING).
YOURS most sincerely,
(SIGNATURE).
UNITED STATES.

(NAME).
TO TWENTIETH CENTURY,
(ADDRESS).
ETERNITY.

(POST MARK)

IF UNCALLED FOR RETURN IN 10 DAYS TO U.S.

Miss Twentieth Century,
No. 00 Golden St.,
Eternity.

FORMS OF ADDRESS.

AMBASSADORS.—To His Excellency the Rt. Honorable ——, or His Excellency the Ambassador for ——. My Lord.

APPELLATIVE TITLES.—See Abbreviations.

ARCHBISHOP.—The Most Rev. His Grace the Lord Archbishop of ——. My Lord Archbishop. Your Grace.

ARCHDEACON.—The Ven. Archdeacon ——. Revd. Sir.

ASSISTANT SECRETARIES, COMMISSIONERS, CHIEFS OF BUREAUS, TREASURER, REGISTER OF THE TREASURY, ETC.—To the Assistant Secretary, Commissioner, etc. Personal communications should be addressed to the simple name, followed by the official title.

ASSOCIATE JUSTICE.—Mr. Justice —— ——.

BARON.—See Viscount.

BARONET OR KNIGHT.—To Sir (and the first Christian name). Sir (and Christian name), The wife takes the title of "Lady," and is personally addressed as "Your Ladyship."

BISHOP.—To the Rt. Rev. —— ——. The Most Rev. the Lord Bishop of ——. My Lord. Diocesan, suffragan, and missionary bishops are addressed "The Right Revd."

BUSINESS FIRMS, ETC.—Messrs. ——. Sirs, Dear Sirs, Gentlemen.

CABINET DEPARTMENTS.—To the Secretary of State, War, Navy, etc. To the Postmaster-General, To the Attorney-General. (Personal). To the Honorable —— ——, Secretary of State, Navy, etc. Postmaster-General, Attorney-General. (Wives of Secretaries, etc.) Mrs. Secretary ——; Mrs. Postmaster-General ——; Mrs. Attorney General ——.

CHIEF JUSTICE.—To the Chief Justice. (Personal) Mr. Chief Justice.

CLERGY.—The Revd. (with Christian name and surname). Sir.

COLLEGE FACULTY.—Prof. —— ——, D.D., LL.D., B.A., etc. Sir, Dear Sir.

CONGRESS.—(Members). See Honorable.

DEAN.—The Very Reverend the Dean of ——. Sir.

DENTIST.—Dr. ——, D.D.S., or D.M.D. Sir.

DOCTOR, PHYSICIAN, OR SURGEON.—Dr. ——, M.D. Sir.

DUCHESS.—To Her Grace the Duchess of ——. Your Grace. (A duke's daughter is addressed as "Lady ——;" and if married to a commoner, retains her title. The duke's eldest son takes his father's second title, and is addressed as a marquis or earl. His younger sons are styled "Lord," and the wife takes the title of "Lady.")

DUKE.—To His Grace the Duke of ——. My Lord Duke.

EARL OR COUNT.—To the Right Hon. the Earl of —— (or Count). My Lord. (The eldest son of an earl takes his father's second title, and is addressed as if he were a Baron or Viscount.)

FOREIGN DIPLOMATIC REPRESENTATIVE.—To His Excellency, the ——. Your Excellency.

GENTLEMAN.—— ——, Esq. Sir. Dear Sir. My Dear Sir. (Two gentlemen are addressed the same as a Business Firm).

GOVERNOR.—To the Governor. (In some of the States), His Excellency the Governor, or His Excellency the Governor of ——.

HONORABLE.—This term is confined to heads of the great Executive Departments, Judges of the United States Courts, Senators and Representatives, Governors of States, and Mayors of cities. It is improperly used when addressed to chiefs of bureaus, or other subordinate officials. In such cases use the official designation.

INTIMACY.—If the intimacy be close, use "My Dear Sir, or Madam; if slight, use "Dear Sir, or Madam, and close the letter with "Yours faithfully;" if an entire stranger, Sir or Madam, and close the letter with "Your obedient servant."

JUDGES.—To the Honorable Mr. Justice ——. On the bench a judge is by courtesy addressed as "My Lord." Judges of U.S. Courts, Hon. —— ——, Judge of the U.S. ——.

KING OR QUEEN.—To His (or Her) Most Gracious Majesty. May it please your Majesty.

KNIGHT.—See Baronet. (See UNMARRIED LADY)

LADY.—(Married), Mrs. —— ——. Madam, Dear Madam. (Unmarried), Miss —— ——, Madame. Dear Madame. (Two young ladies are addressed as "The Misses —— ——. Mesdames, or "The two Miss ——s.")

LEGAL FRATERNITY.——— ——, Esq.

LORD CHIEF JUSTICE.—To the Right Hon. the Lord Chief Justice. My Lord.

LORD MAYOR.—To the Right Hon. the Lord Mayor of ——. My Lord Mayor. (His wife is styled "Lady Mayoress," and is personally addressed as "Your Ladyship." The chief Magistrates of London, York, and Dublin are alone entitled to be addressed as "Lord Mayor."

MAYOR.—To the Mayor. Hon. Mayor of ——. The Right Worshipful the Mayor of ——. Sir.

MEN (of all classes).—Mr. —— ——. Sir, Dear Sir, My Dear Sir.

MILITARY and NAVAL.—See the various titles of this class in the list of abbreviations on another page, as, Capt., Col., Brig.-Gen., Gen., etc. See also "Military" under Miscellaneous Letters.

MARCHIONESS.—To the Most Honorable the Marchioness of ——. Madam, or My Lady. (The eldest son of a marquis takes his father's second title, and is addressed as if he were an earl or count.)

MARQUIS.—To the Most Honorable the Marquis of ——. My Lord Marquis.

MINISTER OR PRIEST.—(Of any persuasion). To the Rev. ——. Sir, etc.

NAVY.—See Military.

NOBILITY and GENTRY.—Peers have their eldest sons, and their sons' eldest sons in perpetual succession, addressed as "To James Patton, Esq." The sons of Baronets, Esquires of the Knights of the Bath, Lords of Manors, Chiefs of Clans, and other tenants of the crown, in capite, are similarly addressed. For others see the separate articles in this list.

OFFICERS.—All officers of the U.S. Civil Service not referred to in separate articles in this list, Aldermen, Magistrates and other officers, are addressed as "To ——, Esq. Sir, etc.

PRINCE OF WALES.—To His Royal Highness the Prince of Wales. Your Royal Highness.

BORDER AND ALPHABET FROM DESIGNS BY THE AUTHOR.

CORRESPONDENCE CONTINUED.

PHYSICIAN OR SURGEON.—See Doctor.

PRESIDENT.—To the President. Mr. President. (In addressing a letter to the President the following form should be observed: "To the President, Executive Mansion, Washington, D.C.)

PRIEST.—Same as Minister.

PROFESSOR.—This title should be use in addressing the members of the faculty in any educational institution, organized with full departments; also scholars and scientists who have become noted as specialists in any department of knowledge. (It is abusively used when applied indiscriminately to the lower ranks of instructors and others.)

QUEEN.—See King.

RABBI.—Same as Minister.

RECTOR.—Same as Minister.

ROYAL DUKE OR DUCHESS.—To His (or Her) Royal Highness the Duke or Duchess of ———. Your Royal Highness.

ROYAL FAMILY.—To His (or Her) Royal Highness Prince (or Princess). May it please your Royal Highness. (See Prince of Wales).

SENATORS.—Hon. ——— ———, Senator of the United States (or U.S. Senate). (Informal), Senator.

SPEAKER OF THE HOUSE OF REPRESENTATIVES.—To the Speaker of the House of Representatives. (Personal), Hon. ——— ———, Speaker of the House of Representatives. Mr. Speaker.

REPRESENTATIVES.—Hon. ——— ———, Representative from ——— (or House of Representatives. (Informal), Hon. ——— ———, M.C.

UNMARRIED LADY.—To Miss ——— ———. Miss. Dear Miss. (See Lady).

VICE-PRESIDENT.—To the Vice-President. (As the chief officer of the Senate), To the President of the Senate. (Personal), Vice-President of the United States, without prefix of title.

VISCOUNT OR BARON.—To the Right Hon. Lord Viscount ———. My Lord. (Sons of a viscount or baron are styled "The Honorable." The daughters are styled "Honorable" and if married to a commoner, are still addressed as the "Hon. Mrs. ———;" or if to a baronet or knight, "The Hon. Lady ———."

MONETARY AND COMMERCIAL SIGNS.

℔ Dollar, or Dollars; as, ℔5; ℔1000.
¢ Cent, or cents; as, 15¢; 75¢.
£ Pound, or Pounds (sterling); as, £2; £10.
lb Pound, or Pounds (in weight); as, 6 lb.
@ At, or to; as, silk @ ℔2 per yd.
℔ Per, as, sheep @ ℔4 ℔ head.
% Per cent; as, discount 6% = ℔17.63.
% Account; as, John Doe in % with Richard Roe.
/ Shilling, or Shillings; as, /1 = 1s. 2d.; /2= 2s. 3d.
A1 The designation of a first-class vessel, in Lloyd's Register of the British and Foreign Shipping; the letter denoting that the hull is well built and sea-worthy, and the figure the efficient state of her rigging, anchors, cables, etc. First Class.
XX Double strength, fineness, etc., as, XX ale.
XXX Triple strength, etc., as, XXX ale.
% In care of; as, Send % Thos. Jennings.
# or No. Number; as, #10 Market St.
℔ Letter of credit. See under Miscellaneous Letters.
⅞ Month and day; as, Feb. 5th; ⅝=May 9th.
2' The small figure = ½; 2'=2½; 2''=2¼.
⁄ Shipment marks; as, ¾ = Shipped March 4th.
✓ Check mark; showing that an entry is made.
See list of Abbreviations for other signs.

PUNCTUATION MARKS, ETC.

, Comma.
; Semicolon.
: Colon.
. Period.
— Dash.
? Interrogation.
! Exclamation.
( ) Parenthesis.
[ ] Brackets or Crotchets.
' Apostrophe.
- Hyphen.
´ Acute Accent.
` Grave Accent.
^ Circumflex Accent or Broad.
~ or ˜ Tilde or Circumflex.
‖ Parallels.
——— Underscore.
¯ Macron or Long accent.
˘ The Short or Breve.
¨ Diæresis.
ç Cedilla.
^ Caret.
" " Quotation Marks.
} Brace.
···· Ellipsis.
···· Leaders, see Ellipsis.
—— Ellipsis.
* Asterisk.
† Dagger, or Obelisk.
‡ Double Dagger.
§ Section.
¶ Paragraph.
Iridex.
⁂ or ⁘ Asterism.

CAPITAL LETTERS.

ADDRESSES.—Begin all addresses, as Dear Madam, Dear Sir, My Dear Sir, etc., with a capital.

ADJECTIVES.—Begin all adjectives formed from the names of places, people, points of the compass, etc., with a capital; as, English, Romish, Northern.

BIBLE.—A capital is always used for the term ordinarily employed to designate the Bible, or any particular part or book of the Bible; as, The Holy Bible, the Sacred Writings, the Old Testament, the Gospel of Matthew.

BOOKS.—Begin all titles of books, and usually each important word in the title, with a capital; as, Hume's History of England, Haydn's Dictionary of Dates.

CLAUSES.—Clauses, when separately numbered, should begin with a capital; as, This writer asserts, 1. That Nature is unlimited; 2. That her treasures are inexhaustible; 3. That etc.

DAYS.—The days of the week should begin with capitals; as, Sunday, Monday, etc.

Deity.—All names and titles of the Deity should begin with a capital; as, God, Jehovah, Father, Creator, Almighty, etc.

DERIVATIVES.—Words derived from Proper Names should begin with a capital; as, Mohammedan, Christian, to Christianize, etc.

DIRECTIONS.—Begin the words North, East, etc., and their compounds and abbreviations, with a capital; as, North, North-east, S.W., etc.

EMPHASIS.—Words requiring special emphasis are frequently printed in small capitals or capitals; as, "I brand him as a TOQUE, a THIEF, a COWARD."

EVENTS.—Begin the name of any historical event with a capital; as, the French Revolution.

EXAMPLE.—The first word of a sentence or clause given as an example should begin with a capital; as, Temperance promotes health."

FIGURES.—Numbers are sometimes represented by capital letters; as, I, V, X, C, Henry VIII.

HONOR.—Titles of honor or distinction should begin with capitals; as, Earl Russell, the Elder spoke, George the Third.

INTERJECTION.—The interjection O is always a capital; as, "Sleep, O gentle Sleep."

INTRODUCTORY WORD.—The first word after an introductory word or clause should begin with a capital; as, Resolved, That one hundred dollars be appropriated.

MONTHS.—The first letter of each month should be a capital; as, January, Feb., etc.

NUMBERS.—See Figures.

PARAGRAPH.—Begin every paragraph with a capital letter.

PARTICULARS.—Each item in a list of particulars, arranged in paragraphs, should begin with a capital; as, The expenditures are as follow:

In Austria, thirty-three per cent;
In England, thirty-eight per cent;
In Germany, thirty-four per cent.

PERIOD.—The first word after a period, except when used for an abbreviation, should begin with a capital.

PERSONAGES.—Names of important personages are frequently printed in small capitals.

PERSONIFICATION.—In strongly marked personifications, the noun personified should begin with a capital; as, "Hope for a season bade the world farewell, And Freedom shrieked as Kosciusko fell."

PLACES.—Begin the names of places with a capital; as, Boston, London, etc.

POETRY.—Begin every line of poetry with a capital letter.

PRONOUN.—The pronoun I should always be a capital.

PROPER NAMES.—All proper names should begin with a capital; as, James, Katie, Atlantic, Mediterranean, etc.

QUESTIONS.—The first word of a direct question should begin with a capital; as, His words are, "Why do you not study the lesson?"

QUOTATIONS.—All quotations should begin with a capital; as, Plutarch says, "Lying is the vice of slaves."

SENTENCE.—The first word of every sentence is, when followed by a full stop, as a period, required to begin with a capital.

SPECIAL IMPORTANCE.—Words of special importance should begin with capitals; as, The Tariff; "Prepare for the Great Day;" The Sheriff of Tipton County."

TITLE-PAGES and HEADINGS.—Title-pages and the headings of chapters should be entirely in capitals.

TITLES.—Begin all titles with a capital; as, General, Doctor, Captain, Mr., etc.

WORDS and PHRASES.—Words and phrases used as the names of particular objects or places, should begin with capitals; as, The Falls, the City of Brotherly Love, the Cape of Good Hope.

ALPHABETIC SUGGESTIONS.

ABBREVIATIONS.—Avoid as much as possible.
BEAUTY.—Excellence is true beauty.
CONSIDERATION.—Consider well before writing a letter.
COPIES.—Always retain copies of important letters.
DATE.—Every letter should be carefully dated.
ENVELOPES.—Same color and size as the paper.
FIGURES.—Do not use figures when three words will do.
FOREIGN PHRASES.—Avoid, AVOID, AVOID.
IMPERTINENCE.—Treat with silent contempt.
INK.—Best quality, and black.
LEGIBILITY.—Legibility is a first requisite.
PAPER.—Use white LETTER or COMMERCIAL NOTE.
PENCIL.—Use only when pen is unobtainable.
POSTSCRIPT.—Using this indicates negligence.
PUNCTUALITY.—This is the politeness of kings.
QUOTATIONS.—Be strictly your own author.
REGISTRATION.—Always register important letters.
RETURN REQUEST.—This returns unsolicited-for letters.
SECURITY.—Securely fold and fasten before mailing.
SIGNATURE.—You can spell your own name—others may not.
SIMPLICITY.—This is a grace that should not be despised.
STAMP.—Enclose for reply when letter concerns yourself.
STYLE.—Be natural—BE NATURAL—BE NATURAL.
VERACITY.—Adhere scrupulously to truthful statements.

DOMESTIC LETTERS include those of the household, relationship, and friendship. They claim a wide range of thought, a nice discernment in the choice of words, and a finished and ornamental style of expression. The style is regulated by the degree of respect the person addressed claims of us, by reason of age, relationship, or the strength of our esteem and the warmth of our attachment. These letters being the promptings of the heart, admit of all the details of every occupation, scene and interest, for to one who loves us nothing that concerns us is trivial or uninteresting.

JOHN QUINCY ADAMS, WHEN SEVEN YEARS OLD, TO HIS FATHER.

Annapolis, June 4, 1770.

SIR:

I have been trying, ever since you went away, to learn to write you a letter. I shall make poor work of it; but, sir, mamma says you will accept my endeavors and that my duty to you may be expressed in poor writing as well as good. I hope I grow a better boy and that you will have no occasion to be ashamed of me when you return. Mr. Maxwell says I learn my books well. He is a very good master. I read my books to mamma. We all long to see you.

I am, sir, your dutiful son,

JOHN QUINCY ADAMS.

HUSBAND TO WIFE.

Lincoln, Neb., Feb. 1, 19—.

MY DEAR JENNIE:—You will see by the date of this that I am creeping slowly homeward, and I trust that another week will end my business engagements here, and leave me free to hasten to you again. Nothing could have made this long absence endurable but the fact that I was accomplishing so much in a pecuniary point of view, and thereby increasing the comfort of my dear little wife and babies. You know, my dearest, what a hard struggle it has been for the last two years to provide even the necessaries of life, and I know you will feel more reconciled to my long absence when you are assured that it will result in engagements that, while they greatly increase my income, will diminish my labors.

I am longing unutterably to clasp you in my arms, and hear your sweet voice again.

Hoping that in my next I shall be able to name a definite time for my return,

I am, as ever,

Your loving husband,

A. P. PARKER.

MRS. JENNIE PARKER.

WIFE TO HUSBAND.

Raleigh, N.C., Aug. 13, 19—.

DEAREST LOVE:

I am at last safely under uncle's roof, having arrived here last evening, baby and myself both well, but really very tired. We had no delay, except about one hour at Louisville. Uncle met me at the depot with his carriage, and in twenty minutes from the time of my arrival, I was cosily seated in my room which was all in readiness for me.

Uncle and aunt seem greatly pleased with my coming, and both are loud in their praise of the babe. They very much regret that you could not have come with me, and say they intend to prevail on you to make them a visit when I am ready to return home.

Baby looks into my eyes once in a while and says, solemnly, "Papa, papa!" I do actually believe he is thinking about home, and wants to keep up a talk about you. Everybody thinks he looks like his papa. By day after to-morrow I will write a long letter. I want you to get this by the first mail, so I make it short.

With dearest love I am

Your Wife,

FLORENCE.

DAUGHTER TO MOTHER.

Little Rock, Ark., June 3, 19—.

MY OWN DEAR MOTHER:

We are looking forward most impatiently to your return. Home will be sweet home once more when we have you amongst us again, for we all miss you sadly these long evenings. The little ones are wild with delight. Their heads are full of projects for little surprises to give dear mamma. The choicest flowers that each can claim as her own are watched with anxious care, and are destined to be sweet offerings of love to you.

I hope, dear mother, you will be pleased with my household management during your absence. Papa considers me quite clever, and a credit to your able teaching. I have not neglected my music and singing. In the latter, papa says, you will find a marked improvement.

Hoping that nothing will delay your long-wished-for return, with best love, in which all unite,

Believe me, your own fondly

Attached and loving child,

EDNA FOWLER.

MOTHER TO DAUGHTER.

Helena, Mont., June 2, 19—.

DEAR KATIE:

Your letter which has been received, affords great pleasure and satisfaction to your father and myself. Nothing could give our hearts greater happiness than to know of your enjoyment and firm purpose to do right. Now that you are removed from all parental restraint, it is of the most vital importance that you implicitly rely upon the religious precepts which have been instilled into your mind.

We are greatly pleased that you are well situated with MR. and MRS. CORNELLY: in return for their kindness you must be honest, industrious, kind and obliging; doing your duty always faithfully, which will be a real satisfaction to yourself as well as to your employers.

We shall constantly pray for your continued protection and prosperity. Louie and Walter unite with your father and myself in sending you love. I remain, dear Katie,

Your affectionate Mother,

MELISSA ARMSTRONG.

FATHER TO SON.

Knoxville, Tenn., Feb. 2, 19—.

DEAR HARRY:—I cannot tell you my proud pleasure in hearing such a favorable report from your Principal, Prof. Gibson, of your progress during the last term. You know how great my anxiety has ever been that you should enjoy all the advantages of education, yet my most lavish expenditure and great care would have been in vain if you had not yourself been willing to give your attention to your studies.

It is therefore with great gratification that I receive such encouraging reports as the last one sent me.

It was one of the greatest trials of my life to part with you during your school terms, and nothing but the certainty of your rapid improvement can reconcile me to your absence.

With warmest affection, I am, my dear boy,

Your proud and happy father,

HENRY MACMURRAY.

SON TO FATHER.

Providence, R. I., Feb. 4, 19—.

MY DEAR FATHER:—Many thanks for your kind present and valuable advice. I sincerely hope that your good opinion of me will long remain unchanged, and that I may be able to do justice to the strenuous exertions and kindly attention of my excellent preceptor.

I am, at present, working very hard, and hope to gain one step higher in the school before the end of the term. My schoolfellows are, generally speaking, very agreeable and well-disposed boys, and we are so well treated that I feel almost as happy as if I were at home. Yet, I often think of the coming vacation with not a little eagerness, and long to meet you and my dear mother. I remain, my dear father,

Your affectionate and grateful son,

WILBER F. WARD.

PHOTOGRAPHS FROM RECORDS MADE BY THE AUTHOR.

DOMESTIC LETTERS CONTINUED.

BROTHER TO SISTER.

Deserted Ooleh, Wyo., Apr. 7, 19—.

My Dear Sister:

I cannot find words to express the pleasure I felt on receiving your letter, after the long, long months of silence on your part. You, who live in civilized communities, cannot realize the intense pleasure we homeless vagabonds feel in reading a letter from our loved ones far away. A letter from you always brings the bright sunshine to my heart, making me happy for days and weeks.

Dear sister, if you could realize how bitter is my disappointment on the arrival of each mail, when I enquire for a letter and the answer is, "Nothing for you, sir," I am sure you would not continue putting off writing till tomorrow.

There are thousands of rough fellows in this country, whose long isolation from woman's society and influence has made them uncouth in their manners, but whose hearts are as warm and true as in early youth, and who love and treasure the memory of those far away with an intensity undreamed of by those who pass their lives surrounded by loving friends and relatives.

May all blessings be yours, and remember there is no mail from the East in which I do not expect to find a letter from my sister.

Your loving brother,

James Osgood.

SISTER TO BROTHER.

Smithfield, O., Nov. 10, 19—.

Dear Ambrose:—Mother has just informed me of the delightful fact that we are to have a visit from you during the Christmas holidays, and that you will bring for our loving embraces what I have always longed to possess—a sister. It seems that I can hardly wait the weeks that must intervene before embracing your Edna, and assuring her of my sisterly affection.

You may imagine that we were very much astonished, but I assure you that we have all often speculated on the perfections of the fair Miss Edna, who occupied so much of your time, thought, and space in your letters.

Will you give my warm love to your Edna, and tell her, that although personly a stranger, I am a most loving sister to any one who claims the heart of my dear brother Ambrose.

Your choice must be a worthy one, and believe me, I am all anxiety to welcome your bride.

Ever your loving sister,

Emeralo.

A FRIEND'S SILENCE.

Columbia, S.C., July 13, 19—.

Dear Emma:—I am quite at a loss to conjecture the cause of your silence, as I am unwilling to believe you have entirely forgotten me, or that there is any decline in your affection or regard. It is now more than three months since I received a letter from you, and in the meanwhile I have formed many theories in order to account for your long epistolary silence. Have you been sick, or what has been the matter? Do let me hear from you as soon as you can. I am anxious to know how you progress, and trust I shall soon have the pleasure of hearing from you. I remain, dear Emma,

Your sincere friend,

Julia Pressler.

TO A FRIEND.

Cinnabar, Mont., June 10, 19—.

Dear Friend:—Accept a hasty line for your entertaining letter. I have been so constantly in motion, or in company, or indisposed, that I have not written one letter but of absolute necessity or business since I met you that last morning. You have not the less lived in my affectionate remembrance. Instead of the stipulated fortnight, Mr. Chase promises us a month in the charming and grand Yellowstone Park, accompanying us on our excursions. When this enchanting Park was set aside to be forever the grand tourist resort of the people, and their common property, few had an idea of the endless variety and stupendous grandeur of the features embraced in this tract of country. Will give details in my next letter. We hope to return over the Union Pacific.

May continued prosperity and happiness be yours, my dear friend.

Yours affectionately,

Frances Murphy.

A SON'S EXPENDITURE.

Newtonville, Mass., Feb. 1, 19—.

My dear son:

Your last letter gave us pleasure not unmixed with pain; pleasure to hear that you were well, and held in esteem by your superiors, and on friendly terms with those of your own standing; and pain from the request which it contained. Your mother, like myself, feels grieved that you should ask for an additional allowance. You should consider that you have brothers and sisters for whom I have also to make a provision, and that if the allowance I now give to you (which is considered large) be increased, it must deprive us all of some of our necessary comforts. When you reflect on this, dear boy, I feel assured you will not urge your request.

All your pets are well, and we guard them jealously for your sake. Trusting that we may constantly hear from you,

Believe me, with our united love,

Your affectionate father,

James Walford.

TO A COUSIN.

Santa Fe, New Mex., Apr. 1, 19—.

Dear Sue:

Imagine my amazement, on coming to make my usual yearly visit at grandma's, to find you married and gone! By some strange mischance your cards did not reach me, and on the supposition of each of the aunts and cousins that some one of the others had written me all about it, I have been left in entire ignorance of the momentous event.

Can you wonder that I have never sent a line of congratulation, or the tiniest token of my love? And it was Walter! I always thought it would be Walter who would carry off my dear little cousin, though she was so shy about it. With best wishes and much love, I am

Your affectionate cousin,

Clara.

NAMING THE BABY.

Salem, Ore., Jan. 10, 19—.

Dear Chloe:

Your letter describing the christening of the wee treasure has just reached me. I cannot tell you how deeply gratified and touched I was that you have named the darling for me, and my only regret is that I could not be present to stand as her godmother.

It was very kind in Julia to be willing for her first child to be named after your sister, and I will write to her to-day.

Thank you for your wish to have me with you. As soon as vacation frees me for a time from my teaching duties I shall certainly pay you a visit.

Kiss my dear little namesake for me. I send by to-day's express a silver cup that I hope you will accept for her.

Lovingly ever,

Cynthia.

A MOTHER REMONSTRATING WITH HER SON.

Laramie, Wyo., April 29, 19—.

Dear Edward:—It grieves me very much that you again have so far forgotten your home lessons, your mother's teachings, and your father's pride in you, as to have habitually frequented the bar-room and gambling saloon—not once nor twice, our informant says, but every evening for weeks.

Edward, my dear, dear boy, pause while there is yet time, and think of the utter destruction of body and soul to which you are hastening. You must be aware of the fearful risk you are running, and I implore you to stop where you are.

I have been weeping all day, and your father looks as if ten years had been added to his life since that dreadful letter came this morning. If your love for us is so far gone that our tears and prayers will not arrest you, then remember that there is a Higher Power, a God of infinite love to a repentent sinner, but a God of vengeance to those who willfully abuse his goodness.

May God bless and strengthen you, my dear son, and that he may lead you back into virtue's path is the earnest prayer of

Your loving mother,

Melrose Balowin.

A SICK SON.

Piette, S. D., Feb. 3, 19—.

Dear Mother:

As I have been writing to you so regularly since George was taken ill, it cannot come to you as a surprise that the doctor gives me very little hope of his recovery, yet he does not think he is in immediate danger. Indeed the nature of his disease warrants him in saying he will probably have a very long illness, whether he gets well or not.

Under such circumstances I think it may be a comfort to you to come here for as long a time as may be convenient to yourself, and be with him. Very often since his appetite has failed, he has said to me, "If I could have one of mother's biscuits?"—or some other nice dish—"I could eat it." I have told him of this letter, and if you will write that you will, as early as convenient, come, I will tell George.

Your affectionate daughter,

Flora.

LETTERS OF LOVE AND COURTSHIP

All the blessedness, all the utility, efficacy, and happiness of the married state, depend upon its truthfulness, or the wisdom of the union. Letters of this character which are written in sincerity and good faith, need but few suggestions as to their composition. The form should accord with the general form on friendship, and their preparation should be more careful than any other, as no others are so thoroughly read and re-read, and carefully laid away and preserved. As there are times when the writer would give fortunes to possess a love letter in order to destroy it, great caution and deliberation are necessary in their composition.

The following forms are given as models, and may be of service to the writer:

AN ARDENT LOVER TO A LADY.

Atlanta, Ind., Jan. 10, 19—.

My Dear Miss Wilson:— The burning love which consumes my heart must find expression in writing to you. I cannot pour out the ardent devotion which consumes me, while in your presence, as then I am dumb. I fear that oftentimes you have thought me stupid and dull, while I was only intoxicated with your lovingness, and listening with eager delight to the music of your matchless voice.

I think you must see now have seen that I love you with all the ardor and devotion of a first true love, yet I pine for a smile to bid me hope, a word of encouragement to save me from despair.

Will you grant that smile? Will you speak that word? I anxiously await your answer.

Yours devotedly,
William Bishop.

GENTLEMAN'S PROPOSAL.

No. 10 Pine St., St. Louis, Mo.,
Oct. 29, 19—.

My Dear Miss Ellsworth:— It is now more than two years since I had the great and highly appreciated pleasure of being received at your house. During all this time I will frankly confess that one attraction, and later, one strong hope, have been drawing me ever to your residence, and I need scarcely add that your own dear self was the attraction, the desire of winning your favorable regard my hope.

Have I been successful? Has the deep, faithful love that I feel for you any response in your heart? Upon your answer hangs all my hope of happiness in the future, for mine is not the fleeting fancy of an hour, but the true, abiding love that is founded upon respect and esteem. Your own maidenly dignity has kept your heart so securely hidden from me that I scarcely venture to hope I have a place there, but I feel I cannot endure suspension any longer, so write to win or lose all.

If you will be my wife, it will be the pride of my life to try to shield you from all sorrow, and to give you all the happiness that a tender, loving husband can bestow upon his first and only love.

Hoping to hear from you soon,
I am with respect and devotion,
Yours faithfully,
George H. Lowe.

FAVORABLE REPLY TO ABOVE.

No. 79 Grant Ave., St. Louis,
Nov. 1, 19—.

My Dear Mr. Lowe:— Your kind and manly letter opens my eyes to the fact that what I believed to be only a warm friendship is a stronger feeling. I see that it would be a pain to me to lose your visits and presence, and that such love as you promise your wife would make me very happy. You see that I answer you frankly, deeming it wrong to trifle with such affection as you offer me.

I have shown your letter to my parents, who desire me to say that they will be pleased to have you call this evening to see them.

With kindest regards, I am
Ever yours truly,
Minnie Ellsworth.

UNFAVORABLE REPLY.

No. 79 Grant Ave., St. Louis,
Nov. 1, 19—.

Mr. George H. Lowe,

Dear Sir:— Your letter has occasioned me the deepest pain, for I feel that I have, unconsciously, led you to a hope which I can never make a reality. I trust that you will believe that it was in no spirit of coquetry that I encouraged your frequent visits, but because I valued your friendship very highly, and believed that I was to you only a friend. Your kind and manly letter, which I shall ever regard as a sacred confidence, has shown me my error; but while I cannot return the sentiments which it contains, I deeply appreciate the honor which you do me.

I trust that your love is not so deep, that your real happiness is injured by my rejection, but that you will find some other heart that will beat responsive to your own.

Hoping that I may still retain your friendship, I am,
Ever your friend,
Minnie Ellsworth.

EXPLAINING A SLIGHT.

Chicago, Ill., Oct. 1, 19—.

My Dearest Emily:

How grieved I am that you should think me capable of wavering in my affection toward you, or of willfully inflicting a slight upon one in whom my whole hope of earthly happiness is centred. Believe me, my attentions to Miss Elliot were never intended for anything more than common courtesy. My long and intimate acquaintance with her brother and my knowledge of her amiable character, as well as the circumstance of her being a comparative stranger to the Granger's, were my sole reasons for my paying more attention to her than I would otherwise have done.

Rest confident in the belief that my affection for you is as unchanged as my regret is great that I should ever have given you cause to doubt it, and believe me, dearest Emily,

Yours, ever sincerely and devotedly,
Alexander Gibson.

ANONYMOUS LOVE LETTER.

Atlanta, Ga., Dec. 1, 19—.

Dear Miss Daniels:

Delicacy and modesty cause me to adopt this mode of approach to one for whom I cherish sentiments of the warmest esteem and admiration. Do not be startled at this abrupt avowal, as it is not the expression of mere passing emotion, nor the evanescent intensity of "love at first sight!" Two summers ago I first had the pleasure of seeing you, and last winter of meeting and conversing with you. My impressions of the graces of your person and character being thus formed from personal observation, and particularly as I am not altogether unknown to you, you may naturally think it would be more manly and straightforward to divulge my name at once — but ah! pardon me, so unworthy and sensitive of slight do I feel, that I could not divulge the *whole* secret of attachment in the first instance. Should your not despise worthy and honorable motives, you would confer a great honor upon one who loves you with a heartfelt affection, by acknowledging this to,

Yours, very devotedly,
Nicholas.

REPLIES TO ABOVE.

UNFAVORABLE.

Miss Daniels has received a communication from "Nicholas, No. 7 B Street", and, for reasons which she reserves to herself, declines to enter into further correspondence.

FAVORABLE.

Miss Daniels begs to acknowledge receipt of "Nicholas" letter of the 1st inst., and to say that, if "Nicholas" gives his real name, Miss Daniels will consider it an act of politeness to frankly state her sentiments.

LOVE LETTERS CONTINUED

REQUESTING PERMISSION TO CALL.—

331 Jessie St., May 4, 19—

Miss Ella Owens:

Having greatly enjoyed our brief meeting at the residence of Mr. Walton, on last Monday evening, I venture to write to request permission to call on you at your own residence. Though myself almost a stranger in the city, Mr. Williams of Lansing, Mich., who is my cousin, has frequently met your father. Trusting that you will pardon this liberty, and place me on your list of gentlemen acquaintances, I am,

Yours very respectfully,
Herman Lincoln.

REPLIES TO ABOVE.

FAVORABLE.

44—St., Je. 1, 19—

Mr. Hermon Lincoln,

Dear Sir:

It will give me much pleasure to see you at our residence next Thursday evening. My father desires me to state that he is very favorably impressed with your cousin, in consequence of which he will be pleased to continue your acquaintance.

Yours truly,
Ella Owens.

UNFAVORABLE.

44—St., Je. 1, 19—

Miss Ella Owens making it a rule to receive no gentlemen visitors upon such brief acquaintance, begs to decline the honor of Mr. Lincoln's visits.

Herman Lincoln, Esq.

INVITATION FOR A DRIVE.

Mr. Munson presents his regards to Miss Uhl, and solicits the pleasure of her company to join a small party intending to pass the day at Linden Park, on Thursday next (17th). Carriages will be in waiting at 8 o'clock, A.M., Thursday, May 17th.

REPLIES TO ABOVE.

FAVORABLE.

Miss Uhl accepts with pleasure Mr. Munson's very kind invitation for a drive to Linden Park on Thursday next.

UNFAVORABLE.

Miss Uhl regrets that, owing to a previous engagement, she is unable to accept Mr. Munson's kind invitation for a drive to Linden Park on Thursday next.

ASKING HER PAPA.

Thursday, June 4, 19—

L. J. Lewis, Esq.

Dear Sir:—I trust you will not consider my conduct rash or presumptuous, or wanting in respect to yourself or family, when I explain my object in addressing you at this time, and, as the matter is one which very nearly concerns my happiness, let me request your kind attention and forbearance.

Having had the pleasure of frequently meeting your daughter, Miss Clara, I have been so impressed with her amiability of disposition, her lady-like manners and accomplishments, that my feelings of friendship have ripened into sincere and honorable attachment. I presume that my character and position in society are so well known to Miss Clara that I may be spared the disagreeable egotism of referring to them more minutely.

As regards my worldly circumstances, my income from an established and prosperous business is, I believe, amply sufficient for the purpose of meeting the expenses of housekeeping and a family in a comfortable style.

In conclusion I have the highest satisfaction in assuring you that my affection for your daughter is reciprocated; and, should yourself and Mrs. Lewis sanction my proposals, I shall ever esteem it a privilege, as well as a duty, to promote your daughter's happiness, thereby doubtless securing my own.

An early reply will greatly oblige,

Yours, very respectfully,
Eli C. Crowe.

REPLIES TO ABOVE.

FAVORABLE.

June 6, 19—

My Dear Mr. Crowe:

I very highly appreciate the manly and honorable way in which you have addressed me in reference to my daughter Clara.

Believing you to be honest, industrious, ambitious to do well, and possessed of excellent moral character, I unite with Mrs. Lewis in the belief that our darling child may very safely trust her happiness to your protecting care.

If agreeable and convenient to you, we shall be happy to have you dine with us tomorrow.

Very sincerely yours,
L. J. Lewis.

UNFAVORABLE.

June 6, 19—

Dear Sir:

Highly appreciating the straightforward and gentlemanly manner in which you have written me concerning a subject that every parent has an interest in, I am compelled to inform you that, though my daughter has treated you with much friendliness as she is accustomed to with all her friends, for reasons we reserve to ourselves, Mrs. Lewis and myself regret to state that we feel it our duty to withhold our sanction to your proposals.

Fully sensible of your most excellent qualities, we unite in the wish that you may meet with a companion in every way calculated to ensure your happiness.

Yours respectfully,
L. J. Lewis.

PROPOSING THE HAPPY DAY.—

7 College Ave., May 10, 19—

My Dear Bessie:—The very kind letter which I have just received from your father, the tenor of which I presume is not unknown to you, inspires me with the hope that the thrice happy day, to whose advent I have long looked forward, cannot now be far distant. You will recollect that our delightful meeting Saturday evening, I said so far as my plans are concerned, there is nothing to prevent our mutual ceremony being performed on Thursday, May 25th; but, of course, this is contingent on the day suiting your own and your relatives' convenience. Remember, my dear Bessie, I will regard each day as of a week's duration till I can call you my own; do not, then, I pray you, lose an hour, but accelerate every arrangement for that event which will permit me to sign myself your affectionate husband till death, though meantime, believe me, my dear Bessie,

Your attached and faithful,
George.

INVITATION TO THE WEDDING.

Mr. & Mrs. M. A. Loringer

Request the pleasure of your company at the marriage of their daughter,

Emma to Henry Arnold,

Thursday, May 24th, '97, at 8 o'clock, P.M.

AT THEIR HOME, COLUMBUS, O.

LEGAL REQUIREMENT.

MARRIAGE LICENSE.

-State of- -County of-

The people of the State of ..... to any person legally authorized to solemnize Marriage, GREETING: You are hereby authorized to join in the holy bonds of Matrimony, and to celebrate the rites and ceremonies of Marriage, between Mr. ..... and M. ....., according to the usual custom and laws of the State of ....., and you are required to return this license to me within thirty days from the celebration of such Marriage, with a certificate of the same, appended thereto, and signed by you, under the penalty of One Hundred Dollars.

Seal.

WITNESS ....., Clerk of our said court and the seal thereof at his office, in ....., in said County, this day of ....., A.D., 19—

.....
County Clerk.

State of ..... } County. } S.S.

I ..... a ..... hereby certify that on the ..... day of ....., 19—, I joined in Marriage, Mr. ..... and M. ....., agreeable to the authority given in the above License, and the customs and laws of this State.

Given under my hand and seal, this ..... day of ....., 19—.

.....
SEAL.

THE CEREMONY.

(The man and woman rising the justice or minister will say to the man) "Will you have this woman to be your wedded wife, to live together after God's ordinance, in the holy estate of Matrimony, to love her, comfort her, honor and keep her, in sickness and in health, and forsaking all others, keep thee only to her, so long as you both shall live?"

(Will say to the woman),

"Will you have this man to be your wedded husband, to live together after God's ordinance, in the holy estate of Matrimony, to love, honor, and keep him, in sickness and in health, and forsaking all others keep thee only to him so long as you both shall live?"

(The parties answering in the affirmative, the minister will instruct them to join hands, and will say:)

"By the act of joining hands you take upon yourselves the relation of husband and wife, and solemnly promise and engage, in the presence of these witnesses, to love, honor, comfort and cherish each other as such, so long as you both shall live, therefore, in accordance with the laws of the State of ....., I do hereby pronounce you husband and wife."

☞ *At the close of the ceremony the husband should obtain from the officiating magistrate a Marriage Certificate, as proof of the marriage in case of necessity when marrying and he can*

SEE UNDER THIS HEAD TERMS—INDEX—BAR ROOM.

LETTERS OF APPLICATION AND RECOMMENDATION.

In applying for a vacant position observe the following suggestions:

1. Your letter will be used as a criterion by which to judge of your fitness to fill the position.

2. Write with extra care, on good plain note or letter paper with envelopes to match, and be as brief as is consistent with perfect clearness.

3. State what advantages you have enjoyed, and express your intention of honestly endeavoring to perform the duties required, but make no mention of your character or qualifications, as these will be learned from your testimonials and references.

4. Write immediately after hearing of the vacant position, or reading the advertisement.

5. If answering an advertisement, give the name of the paper in which the advertisement appeared, and neatly paste the advertisement at the head of the sheet upon which you write.

6. Enclose a copy of any testimonials you may have.

7. Enclose a postal card or stamp for the reply, not stating that the stamp is for the reply.

8. In applying for a position as teacher, do not sign your name with a degree attached, but if a graduate mention the institution. Do not ask for a reply. The letter should be full and explicit, but all boasting avoided.

APPLICATION.

OFFICE BOY.

San Francisco, May 1, 19—.

C. C.
Box 793 P. O.

Sirs:—I would respectfully apply for the position advertised in to-day's Chronicle. I am fourteen years old, reside with my parents at 1417 Oak Street, and refer you to the H. S. Manning Co., from whom I received the enclosed testimonial.

Very truly,
WALTER LAFEBER.

LADY-CLERKSHIP.

Indianapolis, March 27, 19—.

Dear Sir:

I take the earliest opportunity of replying to the enclosed advertisement.

I have been for the last three years in the employ of Poke & Co., Dry Goods Dealers, 91 Ash street, until the dissolution of their firm. I beg to refer you to Mr. A. C. Cue, of the firm of Cue & Co., 1319 Noe St., for testimonials, should you entertain my application.

Your obedient servant,
TRIXIE WILLIAMS.

BOOK-KEEPER.

Annapolis, Md., Feb. 1, 19—.

Messrs. B. & C.,
Baltimore, Md.

Gentlemen:—In reference to the above advertisement, which appeared in to-day's Examiner, I respectfully offer my services. At present I am assistant book-keeper in the employ of Messrs. Boyd & Co., of this city, but desire advancement. I am perfectly familiar with the duties of the position applied for, and am at liberty to refer you to my present employers, who will, I think, satisfactorily answer any questions, as to my character and qualifications.

Very respectfully,
OLIVER RHODES.

CHILD'S NURSE.

Reading, Pa., July 27, 19—.

S. C. C., Call Office.

Respected Madam:—In answer to the above advertisement which appeared in to-day's Call, I beg to offer my services for the situation. I have been in my present place, at Mrs. Bozell's, No. 16 Bush St., for two years, and am leaving on account of the removal of Mrs. Bozell to New York. Mrs. Bozell permits me to refer to her for recommendation.

I have a great fondness for children, and have had the care of them for seven years. Should you engage me, I shall spare no efforts to please you.

Yours very respectfully,
Anna Dunn.

COACHMAN.

Topeka, Kan., Nov. 13, 19—.

Competent,
Box 174, Journal Office.

Seeing your advertisement in to-day's Journal, I respectfully apply for the situation. I am a single man twenty-eight years of age, and have had ten years experience in the care and driving of horses.

I am permitted to refer to A. R. Bentley & Co., 1741 East St.; C. C. Shortridge & Co., 217 Hayes Ave.; Mrs. H. G. Merrill, 612 Olive St.

Your very obedient servant,
Malcome Collier,
No. 17 Chetty St.

COOK.

Milwaukee, Wis., Dec. 10, 19—.

Mrs. A. G. Walton,

Respected Madam:—From to-day's Times I take the above advertisement, and respectfully apply for the situation.

I have been with my present mistress, Mrs. J. M. Whisler, for two years, but she is going to remove to Chicago. I shall remain with Mrs. Whisler a few days longer, and you may refer to her as to my capacity. Very respectfully, Ann Cue.

CHAMBERMAID.

Richmond, Va., Feb. 1, 19—.

Mrs. H. L. Gasho,

Respected Madam:—In reply to the above advertisement, I beg to state that I am obliged to leave my present situation, as Mrs. Adams, my present mistress, is about to break up housekeeping, and I should like to apply for the situation you offer. I have been at the house of Mrs. Adams for six years, and she will answer any questions relative to my industry and trustworthiness.

Yours very respectfully,
Rose McCarthy.

FARM AND HOUSEWORK.

Wheeling, W. Va., Aug. 5, 19—

H. H., Smithfield, O.

Seeing the above advertisement in the Enterprise (N. Y.), I should like to secure the situation for myself and wife, if the location is a healthful one, and the salary is satisfactory. I understand farming and the care of stock, and my wife is a good housekeeper and laundress. We enclose copy of testimonials received from last employer. Should you engage us, we shall try to do our duties in all respects.

Yours respectfully,
594 Pine St. Joseph Huntinger.

INCREASE IN SALARY.

Chicago, Ill., Oct. 4, 19—.

Messrs. Blount & Picken,

Gentlemen:—Without wishing to trespass upon your valuable time, permit me to ask your consideration of a subject which to me is of urgent necessity, namely, the question of an increase in salary. I have now been with you two years, in which time you have doubtless determined upon my disposition and ability to do the work required of me, and, in calling your attention to this subject, I do so under the belief that it has escaped your notice in the more pressing demands upon your time. In the performance of my duties, I have ever tried to be prompt and accurate. I trust my efforts have met with your approval, and, therefore, that you will regard this matter as liberally as possible.

Very respectfully,
George Jonson.

FOR RECOMMENDATION.

Rochester, N. Y., Aug. 1, 19—.

Rev. J. R. Jaquez,

Dear Sir:—Desiring to apply for a position as teacher in Snell Seminary in this city, I would be greatly obliged if you would kindly favor me with a testimonial as to my character, ability, and conduct in Boston Normal School. Should you consider me fitted for the position, you will confer a great favor by interesting yourself in my behalf.

Your obedient servant,
Alice Cook.

APPLICATIONS CONTINUED.

GOVERNESS.

Vicksburg, Miss., Feb. 3, 19—.

Mrs. T. J. Hancock,

Dear Madam:—From to-day's Times I take the above advertisement, and would state that I am anxious to obtain such a position as you offer. For the last seven years I have been teaching in the Peabody Seminary, and the closing of that institution last December necessitates me to seek another position.

Mr. C. H. Henry, Principal of the seminary, permits me to refer to him. While in the seminary I taught the higher branches of English studies, French, and Latin.

Hoping that I may hear from you soon,

I am, madam,

Very respectfully,

Mamie C. Frank.

MUSIC TEACHER.

Xenia, Ind., Sept. 1, 19—.

Judge C. B. Little,

Dear Sir:—I have to-day learned that you wished to secure the services of a competent music teacher, and write to offer myself as a candidate for the situation.

I am a graduate of the Chicago Conservatory of Music, and have devoted my time especially to the study of the piano, guitar, and vocal music. The enclosed testimonial is a copy from the original given by Prof. More, my teacher in the Conservatory.

I am, sir,

Very respectfully,

(Miss) Gertie Griffin.

TEACHER.

Bowling Green, Ky., June 1, 19—.

Mr. A. B. Lambert,

Supt. Pub. Schools, Paduka, Ky.

Sir:—I should like to secure a position in the schools of your city. My present term of teaching in the schools of this place will close June 23rd, after which time I would be ready to enter upon work in a new field.

I have, for several years, taught the Intermediate Department here, where I can remain should I so desire. I enclose a letter from the Board of Directors here, and refer you also to Prof. A. F. Armstrong, Principal of our schools.

I would prefer an intermediate room, but would not object to any temporary appointment, trusting to my work and the changes that naturally occur to make my position satisfactory.

Hoping that I may hear from you at an early date, I remain,

Very respectfully,

(Miss) Minnie Cobb.

SUPERINTENT OF PUB. SCHOOLS.

Springfield, Mo., Aug. 1, 19—.

To the Honorable Board of Education.

Gentlemen:—I have just learned from a friend in your city that the position of superintendent of your schools is vacant, and if the position has not been filled, I desire to make application for the same. I am a graduate of the Indiana State Normal School, and subsequently graduated at the Missouri State University. I have had six years experience in teaching, and am now principal of the High School in this city, but desire a more advanced position.

Yours respectfully,

J. Q. Montcalm.

GOVERNMENT CLERKSHIP.

Columbus, Ohio, Jan. 1, 19—.

Hon. ——— ———,

Secretary of the Treasury,

Washington, D. C.

Sir:

I beg to submit herewith my application for a position as clerk in the Department of the Treasury of the United States, and ask your favorable consideration of it.

I am proficient in the branches of an ordinary English education, and am an expert accountant. This letter will show you the character of my handwriting.

I enclose a number of references from gentlemen well known to you.

Should you be pleased to give me a posion in your Department, I will strive by diligent and faithful application to deserve your approval, and to discharge to the best of my ability the duties of the position to which I may be assigned.

Hoping to receive a favorable answer, I have the honor to be,

Your obedient servant,

Richard Howard.

ANY POSITION.

From the foregoing models, any ordinarily intelligent person should be enabled, by suitably modifying the phraseology, to write an application for any position whatever.

RECOMMENDATION.

GENERAL FORM.

Minneapolis, Minn., Feb. 1, 19—.

To whom it may concern:

The bearer, Mr. James F. Daily, is personally known to me as a young man of sterling worth. As a member of society, he, being of good family, is highly esteemed. He is a graduate of the Polytechnic Institute, and as a student distinguished himself for his diligence, accuracy, integrity, and conscientious discharge of every duty. His moral character is unimpeachable; a thorough student, an indefatigable worker, and a man of extensive reading. Feeling confident he will spare no efforts to work out success in whatever he undertakes, I can cheerfully recommend him to any position to which he aspires.

Very respectfully,

George C. Smollett.

TEACHER.

Greeley, Col., Sept. 9, 19—.

Col. P. D. Ross,

President Board of Trusees.

Dear Sir:—I take pleasure in recommending to your favorable consideration the application of Miss Maggie Hunter for the position of teacher at Buena Vista.

Miss Hunter is a graduate of the State Normal School, and for the past two years has taught a school in this place. My children have been among her pupils, and their progress has been entirely satisfactory to me.

Miss Hunter is a strict disciplinarian, an excellent teacher, and is thoroughly competent to conduct the school for which she applies. Trusting that you may see fit to bestow upon her the appointment she seeks, I am,

Very respectfully yours,

Henry C. Bishop.

CLERK OR SALESMAN.

Seattle, Wash., May 14, 19—.

Messrs. Dodd, Mead & Co.,

Gentlemen:

The bearer, Mr. B. F. Smith, being desirous of obtaining employment as a clerk or salesman in your house, I take great pleasure in commending him to your fullest confidence both as to ability and energy.

He has been known to me for many years, and has uniformly been a man of correct habits, irreproachable character, and decided business ability. He is a good accountant, and punctual and faithful in his attention to business.

With perfect confidence in him, I shall at any time cheerfully respond to any application regarding his character and abilities.

Very truly yours,

J. T. Atkinsontol.

BOOK-KEEPER.

Peoria, Ill., Nov. 29, 19—.

Messrs. Winchester & Co.,

Chicago, Ill.

Gentlemen:—The bearer, Mr. Frank C. West, who is now leaving our employ, has been in our counting room for the past six years, during which time he has been faithful in attending to his duties, industrious in a high degree, and thoroughly reliable.

He is a good penman, correct and expeditious accountant, fair stenographer, and an excellent correspondent.

Very truly yours,

The Henry Leeche Co.

GARDENER.

Summitville, Pa., Feb. 10, 19—.

The bearer, Mr. Chas. Morton, has lived with me the past year as a gardener. This testimonial of his capabilities is to certify to his being thoroughly competent in the care of hot and cold draperies and greenhouses, also understanding floriculture and vegetable gardening. During his stay with me, he has very satisfactorily performed his duties, and is good-natured and trustworthy.

Charles George.

PORTER.

Jamestown, N. D., Dec. 1, 19—.

Messrs. Howard & Co.,

Fargo, N. D.

Gentlemen:—The bearer, Mr. Alva Baker, has been employed by us for the past two years, and has faithfully performed all the duties devolving upon him. He understands the receiving and shipping of goods, is a very fair penman, and a good marker.

We are, yours truly,

Hare & Perkins.

ACKNOWLEDGMENT.

Bozeman, Mont., Feb. 1, 19—.

Mr. G. H. Sheldon,

Dear Sir:—Your kind note, containing a list of the dates and statistics you promised me, has just reached me, saving me many long hours of troublesome research. Thank you most earnestly for the trouble you have taken, and the immense assistance you have been to me.

Truly your friend,

Minnie Dankirk.

ADVISORY.

Oakland, Cal., May 10, 19—.

My Dear Edwin:—Judging by the tone of your letter of the 4th inst., you are becoming very intimate with Ed. Nesbitt, and it grieves me to note it.

My dear boy, I am an old man, and in a long life of observation, I have never seen a young person made happier or better by association with men whose character would not bear investigation. Such a man is Ed. Nesbitt.

He has no profession or trade, refuses to give any account of his previous life, and came to your city from nobody knows where. His money is spent with profusion; he rides fast horses, and wears flashy jewelry, with showy clothing; and his language betrays low origin and an imperfect education.

There is sound warning in the old proverb, "A man is known by the company he keeps," and I would not have you judged for being the companion of Ed. Nesbitt.

I believe this to be a matter of vital importance to you, and beg that you give it consideration, believing it to be kindly meant.

Ever your sincere friend,

John Coden.

ANNOUNCEMENT.

Bush Grove, Ind., Sep. 3, 19—.

Dear Mamie:

It is my painful task to make the announcement to you of the death of your sister Henrietta this morning at eight o'clock. The news, deeply as it will grieve you, cannot come as a surprise, as your sister has been failing so steadily and rapidly since she came here, and it should comfort you to know that she was fully conscious of the fatal character of her illness, and prepared with Christian fortitude to pass the portals that must open for us all. Aunt Mary will write full particulars in a day or two.

I am, with deepest sympathy,

Your sincere friend,

Mattie Bolton.

APOLOGY.

Chautauqua, N.Y., Oct. 29, 19—.

My Dear Mrs. O'Connor:

I write to apologize for my failure to keep my appointment with you yesterday. I was dressed and just tying my bonnet strings, when Emma scalded herself so badly that I was obliged to attend to her needs, and by the time I had her comfortably in bed with the burns properly dressed it was far too late to hope to meet you.

I regret extremely having broken my engagement, but trust you will under the circumstances pardon me.

Most truly yours,

Ella McComben.

COMPLAINT.

Peach Orchard, Mich., Feb. 1, 19—.

Mrs. C. D. Abbey,

Dear Madam:

I trust you will not consider me intrusive if I make complaint to you about your servant, but I have spoken quietly to her and received such an insolent reply that I am compelled to apply to you.

The girl is in the habit of throwing over the connecting fence, into my yard, every kind of dirt, fruit skins and stones, rags, papers, and the sweepings, which she deliberately brushes from the dust pan from your back windows. I am very reluctant to make any complaint, but my own girl very naturally is indignant that all her efforts to keep the yard tidy are wasted, and my effort to settle the matter without any trouble to you was met only by impertinence.

Will you kindly exert your authority to prevent any further trouble, and pardon me for any annoyance I may cause you?

Very truly yours,

Nelly Sumner.

CONDOLENCE.

Trenton, N.J., Nov. 10, 19—.

My Dear Friend:

It is with deepest sorrow I have just heard of your sudden bereavement, and I write at once that you may know my heartfelt sympathy is yours. I know how great your loss is, and in your bereavement it will at first be hard to see any comfort in such a dispensation, but you may later be thankful that the lost one was spared all suffering, all the trying illness that makes the parting still more painful.

I will not now intrude upon your privacy, but trust that if I can be of any service, you will accord me the privilege of an old friend, and command me freely.

Yours most sincerely,

Albert Cue.

CONGRATULATION.

Stockvale, May 3, 19—.

Mr. R. H. Hilton,

My Dear Friend:

It was with most sincere pleasure that I heard of the large sale and great popularity of your last book, and that your success as an author seems assured. I have expected this would be so ever since I sat up all night to read the copy you so kindly sent me, for I thought it contained all the elements necessary to make a useful and successful book, but it is very pleasant to find an appreciative public of the same opinion.

Wishing you still further advancement upon the road you have chosen, believe me,

Most sincerely yours,

Gaoie Wyly.

CREDIT.

Reading, Pa., Jan. 2, 19—.

Messrs. Dodd, Meade & Co.,

New York.

Gentlemen:—Please allow Mr. C. H. Gibson a credit for such selections as he may make to an amount not exceeding one thousand dollars ($1,000), for ninety days. We will become responsible to you for the payment of the same should Mr. Gibson neglect to do so at the proper time.

Be kind enough to inform us of the amount for which you give him credit, with date it becomes due; also, in default of payment, forward notice immediately.

We remain, yours very truly,

Churchill & Co.

Mr. Gibson's signature.

C. H. Gibson.

DESCRIPTION.

Chicago, Ill., April 30, 19—.

Dear Parents:

Having visited all our relatives here, I seat myself to convey to you some idea of this wonderful city, in many respects one of the most remarkable on the face of the earth, having a population of upward of 2,000,000. You have heard so much of the city that I must give you a brief sketch of its history.

The first white man ever known to have set foot on the spot where Chicago now lies, was a French missionary from Canada, named Pierre Jacques Marquette, who, with two others, having been on a missionary tour in the southern part of Illinois, when homeward bound was detained at this place in the fall of 1673, in consequence of the severe cold, etc. (Descriptive letters are necessarily lengthy, sometimes occupying many pages).

Your affectionate daughter,

Amy Hayes.

MISCELLANEOUS LETTERS—CONTINUED.

DONATION (Soliciting).

Springfield, Ill., Nov. 15, 19—.

Mr. Alexander Keyes,
Dear Sir:

I have been appointed one of a committee to solicit donations toward paying the debt upon Grace Church. Knowing the interest you have always felt in the church, and your liberality in so many of its emergencies, I write to ask you to contribute to the present fund, hoping to meet a favorable response.

I enclose the printed form, which can be re-enclosed to my address, and the treasurer will be at the church at an appointed time to receive the contributions.

Hoping to hear from you, I am,
Very truly yours,
A. H. Lawshee.

DONATION (Granting).

Springfield, Ill., Nov. 17, 19—.

Mr. A. H. Lawshee,
Dear Sir.

In answer to your note of the 15th inst. it gives me much pleasure to enclose my check for one hundred dollars ($100) toward the payment of the church debt.

Wishing you every success,
Yours very truly,
Alexander Keyes.

EXCUSE.

Arcadia, Ind., Nov. 1, 19—.

Miss Patterson:

You will please excuse Gertrude for non-attendance at school yesterday afternoon, she being detained in consequence of a severe headache.

Very respectfully,
Rebekka Wilson.

FAVOR (Soliciting).

Big Eye, Minn., Sept. 1, 19—.

Mr. M. A. Sheil,
Dear Sir:

It is with much reluctance I write to ask a favor of you. My last quarterly payments of rent have been delayed, on one pretense or another, and I find myself needing the immediate use of fifty dollars ($50) and unable to collect it. Can you lend it to me for a few days? On the first of October I have a large payment promised me, and will then return the money.

Trusting my request will be refused if it inconveniences you, I venture to take the liberty of an old friend in asking it.

Very truly yours,
Edward Hughes.

FAVOR (Granting).

Shelbyville, O., Nov. 17, 19—.

My Dear Mrs. Jenkins:

Your note asking for the loan of "Uncle Tom's Cabin" has just reached me, and it gives me pleasure to send the book by your messenger.

Hoping you may enjoy it as much as I did, I am,
Ever yours,
C. F. Morgann.

FAVOR (Declining).

174 Pine St., Nov. 10, 19—.

Mr. William Good,
Dear Sir:

Your letter requesting an introduction to Mrs. Philips has just reached me. I regret to be obliged to refuse you, but my own acquaintance with Mrs. Philips is too slight to warrant me in introducing a stranger to her.

Very truly yours,
Anne Bowling.

GIFT (Presenting).

Indianapolis, Ind., Oct. 10, 19—.

Mr. ———
Dear Sir:

The undersigned, ———, deeply regretting your departure from among us, desire your acceptance of the accompanying memorial, in testimony of our respect and affection for you as a gentleman and ———, and as a faint expression of our appreciation of your kindly efforts to render our connection with ———, not only pleasant and agreeable to ourselves, but profitable to ———.

Deeply regretting that our connection must be severed, we shall gratefully remember our association in the past, and hope always to be held in pleasurable remembrance by you.

(Signatures).

INTRODUCTION.

Bellevue, Mo., May 1, 19—.

Mr. Philip Brooks,
Detroit, Mich.

Dear Sir:—It gives me great pleasure to introduce to you the bearer, Mr. O. H. Roads, who visits your city for the purpose of seeking employment as a book-keeper. He is a young man of good character, strict integrity, and superior ability, and is entirely worthy of your confidence. Believe me, I shall esteem it a personal favor if you will use your influence in his behalf. I remain,

Yours very truly,
Cedar Allen.

INVITATION.

19 W. Olive St., Jan. 10, 19—.

Mr. E. C. Walton,
Dear Sir:—The pleasure of your company is requested to join a theater party of eight to see Salvini next Thursday evening in King Lear. The party will meet at my house at 7:30, and return after the performance to supper.

Hoping that your engagements will permit you to join us, I am,
Sincerely your friend,
Anna Austin.

ACCEPTING ABOVE.

My Dear Miss Austin:

Your kind note enclosing tickets for Thursday evening has just reached me. It gives me great pleasure to accept your invitation, which adds the pleasure of your society to that of the performance.

With many thanks,
Truly your friend,
E. C. Walton.

DECLINING ABOVE.

My Dear Miss Austin:

Your kind invitation for me to make one of your theater party has just reached me. I regret extremely that a previous engagement I cannot break compels me to decline.

With many thanks for your kind remembrance.

Truly your friend,
E. C. Walton.

MILITARY.

Headquarters, Military Division of the Mississippi,
In the Field, Manchester, Va., May 9, 1865.

General:—I have joined my army at Manchester, opposite Richmond, and await your orders. General Wilson telegraphs, through General Schofield, for hay and forage for 20,000 animals, to be sent up the Savannah River to Augusta. Under Secretary Stanton's newspaper orders, taking Wilson substantially from my command, I wish you would give the orders necessary for the case.

W. T. Sherman,
Major-General Commanding.

Lieut.-General U. S. Grant,
Commander-in-Chief,
Washington, D.C.

PRESS (Writing to).

Editors and printers would regard it as a great favor if you would observe the following rules:

1. Use black ink, white paper, wide ruled.
2. Make the pages small—½ size of foolscap sheet.
3. Write on one side of the sheet only.
4. Leave ample margin all around.
5. Number the sheets in successive order.
6. Write in plain, bold hand, disregarding beauty.
7. Use no abbreviations not to appear in print.
8. Punctuate as it should appear in print.
9. Underscore once for *italics*; twice, small CAPITALS, three times, large CAPITALS.
10. Always use caret when interlining.
11. Use special care in writing proper names.
12. Review every word to see it legible.
13. Give directions to printer at top of first page.
14. Use separate sheet for private letter to editor.

SYMPATHY.

Harrisburg, Pa., Feb. 1, 19—

Friend Howard:

I regret to hear of your sudden and unexpected heavy loss, and hasten to offer you, not only my earnest sympathy, but aid in whatever way I can assist you. I know your energy and hopeful spirit too well to believe you will allow this to depress or discourage you from further effort.

The child learns to walk after many falls, and many of our richest and most prosperous men have attained their eminence and wealth only by the experience resulting from failure.

I predict that you will build on your ruins a brilliant future. Let me know how I may serve you, for by so doing, I shall understand that you have not ceased to value my friendship.

Sincerely your friend,
Sylvester Jones.

TELEGRAPHIC MESSAGE.

Chicago, Ill., Sept. 1, 19—.

Mrs. Clara Williams,
1163 Market St., San Francisco, Cal.

Arrived safe. Like city. School full; many from coast. Letter to-morrow.

11/Pd. Lester Krino.

THANKS.

33 Grant Ave., Feb. 3, 19—.

Mr. C. B. Arnold,
Dear Sir:—I return herewith the copy of Tennyson you so kindly loaned me, thanking you heartily for the pleasure it has given me.

Sincerely your friend,
Ada Cox.

The chief requisites of a business letter are clearness, conciseness and explicitness. There should be nothing defective, superfluous, or ambiguous. In replying to a letter take up the different items and answer them in the same order as they are contained therein. The correspondent should be familiar with the wants of his customer and the details of the business he represents. It is a point of very great importance that all orders given be clear and explicit. Every letter should speak, as it were, for itself, and give all the necessary particulars of the transaction to which it refers.

ORDERING BOOKS.

1.

Peru, Ind., Nov. 1, 19—.

Messrs. Conway, Logan & Co.,
671 Market St., Chicago.

Gentlemen:—Please forward to my address, by express, the following:

1 copy Spurgeon's Sermons	$2.00
1 " Webster's Academic Dictionary	2.50
1 " Pilgrim's Progress	1.25
1 " The Golden Dawn	3.50
1 " Soul's Synonymes	2.00
	$11.25

For which I enclose money order.

Very respectfully,
W. H. Knause.

2. ORDERING DRY-GOODS.

Jacksonville, Ala., May 1, 19—.

Messrs. Brown & Howard,
New York.

Gentlemen:—Please send me, by express, the following:

2 Lancaster Spreads ($3.50)	$ 7.00
3 doz. Napkins	9.00
12 yds. Calico, white with pink dot (25c)	3.00
12 " " blue "	3.00
1 fine Lady's hem-stitched Handkerchief.	1.00
4 pairs Lady's Cotton Hose (50c).	2.00
	$ 25.00

Collect on delivery.

Yours truly,
J. K. Armstrong.

3. ORDER TO A CLOTHIER.

Gettysburg, Pa., Sept. 9, 19—.

Messrs. Walters & Co.
Detroit, Mich.

Gentlemen:—Please send me by express, C. O. D., one all wool suit, for boy ten years of age, to cost about Ten or Twelve Dollars, also an overcoat the cost of which is about Nine Dollars. Please enclose rules for self-measurement with parcel and oblige.

Yours, etc.,
Jay M. Montichortis.

4. ORDER TO A GROCER.

Kokomo, Ind., May 10, 19—.

Geo. H. Taylor, Esq.
Indianapolis, Ind.

Dear Sir:—Please deliver to the bearer, with bill of cost, the following:

30 lbs. Granulated Sugar,
10 lbs. English Breakfast Tea,
3 lbs. Java Coffee, roasted, not ground,
2 boxes Ivory Soap,
6 gals. Maple Sirup,
1 bbl. Flour, "Drifted Snow."

Charge in acct., and oblige,
Yours, etc.
S. T. Winfielder.

5. ORDER TO MUSIC DEALER.

Chico, Cal., Nov. 1, 19—.

Mr. Jas. McKee,
San Francisco, Cal.

Dear Sir:—By return mail, please send the following pieces of music; money order, covering cost, is herewith enclosed.

Falling Leaves, by E. C. Bliss	$ 0.40
Early Violets, ten short pieces, by Goodrich, published by John. D. Smith, each 25c.,	2.50
Bugle Song, by Hymen Lloyd	.50
	$ 3.40

Your earliest attention will greatly oblige,
Yours truly,
Stephen Burnley.

INQUIRY CONCERNING SHIPMENT OF APPLES.

6.

Abingdon, Ill., Oct. 10, 19—.

A. R. Benton, Esq.,
Chicago, Ill.

Dear Sir:—I have a large quantity of fine apples that I would like to place in the hands of a good Commission Merchant in your city. Would you be kind enough to give my address to some good party, directing them to report present state of the market, and advise what expense attends the hauling of the fruit after arrival?

I am, etc.,
Martin C. Chesneal.

SHIPMENT OF APPLES ON COMMISSION.

7.

Fruitville, O., Oct. 13, 19—.

Messrs. Sumner & Co.
Cincinnati, O.

Gentlemen:—Your favor of the 8th inst. received. I have today shipped to your consignment Three Hundred Barrels of Apples, (Rhode Island Greens), by the C. C. C. & I. R. R., due in your city, at their depot, on the 15th inst.

Please take them in charge and sell to the best advantage, holding proceeds subject to my order.

Advise me upon receipt of fruit.

I am yours, etc.
Charles Teele.

8. REQUEST FOR PRICE LIST.

Rome, Ga., Jan. 10, 19—.

Messrs. Walton & Whisler,
Atlanta, Ga.

Gentlemen:—I have recently leased a store in this place, which I am at present fitting up and stocking with a fine selection of Fancy Groceries. Please oblige me with your price list and best terms.

I am respectfully yours,
Joseph Arnold.

9. REPLY TO ABOVE.

Atlanta, Ga., Jan. 12, 19—.

Joseph Arnold, Esq.,
Rome, Ga.

Dear Sir:—Yours of the 10th inst. received. We enclose price list with terms marked against the several lines. We believe you can make a satisfactory selection from our stock, and would like for you to examine it if you can find it convenient to do so. If not, we shall endeavor to fill any order with which you may favor us, agreeable with instructions. We shall require Bank Draft on N. Y., for the amount of the order, or good reference.

We are respectfully,
Walton & Whisler.

INQUIRY AS TO RESPONSIBILITY.

10.

Des Moines, Ia., Jan. 1, 19—.

Mr. Geo. R. Houser,
Clinton, Ia.

Dear Sir:—You will oblige me by stating that if Mr. Henry Roads, of the firm of W. C. Kring & Co., of your city, is known to you, and deserving of credit.

Yours very truly,
Seymour Bros.

FROM PENSCRIPT ISSUED BY THE AUTHOR.

BUSINESS LETTERS CONTINUED.

PROPOSING TO OPEN A BUSINESS ACCOUNT.

11. Grand Forks, N.D., Feb. 1, 19—.

Messrs. Merrill, Smith & Co.,
St. Paul, Minn.

Gentlemen:—Having established a business here which is rapidly increasing, we are desirous of opening an account with your house. We should be happy to receive from you a list of your goods, with your terms to the trade, and enclose our own terms for settlement.

Should you feel willing to make an arrangement with us, Mr. Chas. Munger, of your city, will give you any information desired with regard to the condition of our affairs.

Hoping to hear from you soon, we are,
Respectfully,
Jones & Carleton.

12. REPLY TO FOREGOING.

St. Paul, Minn., Feb. 4, 19—.

Messrs. Jones & Carleton,
Grand Forks, N. D.

Gentlemen:—Your favor of the 1st inst. received. We should be pleased to open an account with you upon your usual terms of settlement, and enclose you the desired list with terms for the trade.

Any order with which you may favor us will be promptly filled, and, we feel quite confident, to your satisfaction.

We are, gentlemen,
Very truly yours,
Merrill, Smith & Co.

13. OPENING ANNOUNCEMENT.

To our patrons and friends:

We cordially and specially invite the attention of our patrons and friends to our new display of (here state the new specialties). We have met with such liberal encouragement during the past season, and our efforts to meet the public demand have received such generous support, we feel doubly assured our present stock will prove equally inviting, and fully as desirable an exhibit as any we have heretofore made.

(Signature).
(Address).

REQUESTING SETTLEMENT OF ACCOUNT.

14. Augusta, Me., Dec. 15, 19—.

Benjamin Smith, Esq.,
Concord, N.H.

Dear Sir:—We have, for several days past, been looking for a remittance from you, covering your May account, and as the necessity of meeting our own engagements punctually is ever before us, we are obliged to remind you that prompt payments are requisite and indispensible to the credit system.

We are yours, etc.,
Aloen & Morton.

15 REPLY TO ABOVE.

Concord, N.H., Dec. 21, 19—.

Messrs. Aloen & Morton,
Augusta, Me.

Gentlemen:—We regret extremely our delay in meeting promptly the payment of May bills, and can only excuse ourselves on the ground of business depression and subsequent difficulty in making collections. I herewith enclose, in part payment of account named, bank draft on N.Y. for Two Hundred Dollars ($200), which please place to our credit. The balance shall try to remit by the 31st inst.

We remain yours, etc.,
Herald & Langtry.

16. FORWARDING GOODS.

San Francisco, Cal., April 6, 19—.

Messrs. Perkins, Jones & Co.,
Tacoma, Wash.

Gentlemen:—According to your order of the 3rd inst. we have shipped you this day, per Steamer State of Oregon,

200 bbls. Flour (Drifted Snow).
15 bbls. Sweet Potatoes,
12 bbls. Apples, (All marked P. J. & C.)

Trusting that these will prove as satisfactory as those heretofore sent, and bring as good a price, we are,

Yours respectfully,
Greene, Tobin & Co.

17. PROVISION AND GROCERIES.

St. Louis, Mo., June 19, 19—.

Messrs. Miller & VanBuskirk,
Springfield, Ill.

Gentlemen:—We take pleasure in enclosing you today's market quotations. You will notice the sharp advance in provisions and other lines. The prospects are that pork will touch $22 before 26th inst.; other pork products are advancing in same proportion, dried fruits and canned goods are also rapidly advancing, and we look for very material advances before long; sugars, syrups, coffees, and teas are a shade lower.

We would advise you to order provisions, dried fruits, and canned goods now, if you want any, as we think it a very favorable time to purchase. Our Mr. Newkirk will call on you the latter part of this week, and we will be pleased to have you favor him with an order.

We remain,
Yours truly,
Little & Webb.

COMPLAINING OF AN ERROR IN A BILL.

18. Galveston, Tex., July 7, 19—.

Messrs. Finney, Coburn & Co.,
New Orleans, La.

Dear Sirs:—Upon examining the bill accompanying your last lot of goods, I find I am charged with six dozen pairs of cotton hose which I neither ordered nor received. I enclose the bill and a copy of the invoice of goods, that the error may be corrected. I am, gentlemen,

Yours very respectfully,
Ira Dunn.

19. URGING PAYMENT OF RENT.

Montgomery, Ala., Aug. 4, 19—.

Mr. S. T. Ferguson,
Dear Sir.

I have waited patiently for your convenience in the payment of rent for the house you are at present occupying. As, however, you have been my tenant for three months without meeting any of the payments, which were to be made monthly, I feel obliged to remind you of the fact that there are $75 due me.

Trusting that you will give the matter immediate attention, I am,

Yours truly,
Ambrose Cooke.

20. AN OFFICIAL LETTER.

Greeley, Col., Nov. 10, 19—.

A. B. Cude, Esq.,
Agent American Book Co., N.Y.

Dear Sir:—At the last meeting of the Board of Education of this city, "Harvey's English Grammar," was adopted for use in our Public Schools. "Eclectic History of the U.S." adopted a year ago, is giving the best of satisfaction.

Yours respectfully,
Byron Sinclair,
Chairman Text Bk. Committee.

21. ACCOUNT SALES.

New York, Oct. 15, 19—.

Sold by Marsh, Welsh & Co., for Account of Chas. Fox, Jeffersonville, Ind.

100 bbls Apples, @ $2.75.... PAID		$275.00
Freight N.Y.C.R.R.....	75.00	
Drayage and labor.....	18.00	
Commission, 5 per cent....	13.75	
		106.75
Net proceeds to your credit		$168.25

22. ANSWER TO ABOVE.

Jeffersonville, Ind., Oct. 25, 19—.

Messrs. Marsh, Welsh & Co.,
New York.

Gentlemen:—Yours of the 15th inst. with account sales 100 bbls. apples received. The sales were satisfactory, and I am glad were so promptly rendered, as it enables me to prepare another shipment, and, I trust, secure the favorable market you report. I shall try to have them in readiness for shipment next Wednesday, 30th inst. I will make drafts against proceeds, but will notify you hereafter.

I am, gentlemen, yours, etc.,
Chas. Fox.

INFORMATION AS TO BUSINESS LOCATION.

23. Atlanta, Ind., May 14, 19—.

R. S. Webster,
Boise City, Idaho.

Dear Sir:—Entertaining an idea of immigrating to Idaho City, and there conducting a business similar to your own, I take the liberty of an old friend in asking your opinion on that location for the trade, and shall gratefully acknowledge any information you can give me as to the business being done in that section at the present time.

Will you also oblige me with your views as to the expediency of a further consideration of this subject.

I am sincerely yours,
Clinton Porter.

SUBSCRIPTION FOR PERIODICAL.

24. Phoenix, Ariz., Nov. 29, 19—.

Mr. Shelly Tichenor,
496 Broadway, N.Y.

Dear Sir:—Please find enclosed money order for One Dollar ($1.00) for which send to my address The New Era for 19—.

Yours, etc.,
Conrad Schofield.

RECOMMENDING SUCCESSORS ON 25 RETIRING FROM BUSINESS.

Jacksonville, Fla., May 10, 19—.

Messrs. Fairchild, Good & Co.,
Cincinnati, O.

Gentlemen:—It is with some feeling of regret that we announce to our friends the relinquishment of our interest in this business with the expiration of next month. Our stock and premises will at that time (June 27th) be transferred to Messrs. Pope & Co., whom we cheerfully present to your notice, and feel it our duty to recommend them for a continuance of your confidence. The members of this firm

Yours truly,
Rowen, Dean & Co.

BUSINESS LETTERS.

The following list contains only the bodies of letters, the other parts being readily supplied by the writer.

OFFERING GOODS.—We take the liberty of enclosing a few samples of White Taffetas, which we have just received per Steamer Hamburg. They are in patterns of about 16 yards, full width 24 inches, at $1.75 per yard. Should you need any of them, now or at a future time, we shall be happy to receive your order.

GOODS SHIPPED ON JOINT ACCOUNT.

In accord with our agreement, we have forwarded to you this day, per Merchants' Dispatch, Three Hundred Barrels Drifted Snow Flour, Invoice and B. of L. inclosed, to be sold for our joint account. One-half the invoice has been charged to your account.

Hoping that this adventure will prove so profitable as to lead to others, we are,

ENCLOSING REMITTANCE.—Your favor of 10th inst., covering statement of account, is at hand, and upon examination we find it correct. Enclosed find our check on Third National Bank of this city for Fifteen Hundred and Seventy Dollars, in payment of Bills of

May 10	$550.00
" 17	400.00
" 25	620.00
	$1570.00

Please acknowledge receipt, and oblige

ACKNOWLEDGING REMITTANCE.—We have the pleasure to acknowledge the receipt of your esteemed favor 15th inst., containing your check on Third National Bank of your city for Fifteen Hundred and Seventy Dollars ($1570.00), which we have placed to your credit in settlement of your account.

Please accept our thanks, and, requesting the favor of your future orders, we remain,

ANOTHER FORM.—

Received from Messrs. L. D. Morse & Co., Seven Hundred and Ten $^{00}_{100}$ Dollars on account.

$710.$^{00}_{100}$ _____ M. A. RUDE & Co.

Above please find receipt for your remittance of the 17th inst., for which we are obliged. Requesting your future patronage, we remain,

OFFERING A SPECIAL LOT.—Having a large quantity of machinery, cutlery, hardware, and other material left after our fire on the 29th ult., we desire to close them out to a reliable firm, and therefore give you the privilege of a first bid on them. As we cannot engage to hold them for you after the 20 inst., if it could be arranged, it would be advisable for you to either come in person, or to send some one to examine and make an offer for the goods before the above date, as we desire to commence rebuilding at an early date.

COMPLAINING OF GOODS.—It has been my invariable course to act with integrity and honor, since I first entered into business transactions with you. May I not expect the same conduct in return? Until lately, indeed, I had no reason for complaining; but the goods I received on the 17th inst., also those just delivered, are so inferior in quality that I hesitate to offer them to any of my customers. Since I can have much better value elsewhere, and I do not sell job goods on any account, I am reluctantly obliged to advise you that, unless you can send me others in their stead, I must withdraw my correspondence altogether. In the meantime, both lots are laid aside awaiting your orders. An immediate answer will oblige

ADVISING OF SHIPMENT.—Enclosed please find B. of L. and Invoice of Glassware, amounting to $175.$^{25}_{100}$, forwarded per B. & O. R.Y., as per your order of the 2d inst. The goods are shipped in good condition, and we have taken care to select the most attractive styles of the class you mention. Should anything prove unsatisfactory, we will be obliged if you will notify us promptly.

ENCLOSING DRAFT FOR ACCEPTANCE.—We enclose our draft on you for your acceptance, after which please let us have by return mail, and oblige

COMPLAINING OF DELAY.—On the 10th of November I sent you an urgent letter, ordering in haste the inclosed list of articles, which have not as yet been received; nor have I been advised as to the cause of the delay. I have been greatly annoyed because of the necessity of purchasing in the market from time to time of such articles in the list as I needed, at advanced figures, which were sold at cost rather than disappoint my customers. This treatment being unusual from you, I desire an explanation. If the goods are not received by the 30th inst., you will please consider the order cancelled.

REPLY TO ABOVE.—We are in receipt of your favor of the 20th inst. and beg to reply that this is the first intimation we have received touching your order of Nov. 10th. Your letter of that date has never reached us, and has doubtless miscarried. We are indeed sorry that you have been put to so much trouble and expense. Our custom is to fill all orders immediately upon receipt thereof, as you know from experience. We have therefore to-day shipped the order in full at the very lowest prices, as per inclosed invoice, and hope that the goods will reach you before the 30th inst., and prove satisfactory. With much respect, we are,

RECOMMENDING A SUCCESSOR.—The firm of Henry, Scott & Co. having retired from business, and transferred their stock and premises to A. S. Blocke & Co., these gentlemen will hereafter receive your correspondence. Having entire confidence in the strict business capacity and integrity of the new firm, we are induced to believe that all transactions with them will contribute greatly to your advantage. Asking for them the same generous treatment accorded to ourselves from your house, we remain.

GOODS CONSIGNED TO BE SOLD ON COMMISSION.—Your favor of the 5th inst. is at hand. As per agreement, we enclose you B. of L. and Invoice of 10 bbls. Mess Pork, 2 bbls. Lard, and 40 firkins of Butter, shipped this day per L. E. & W. R.Y., to be sold for our account. Our request is that you do not sell for less than Invoice price, and if you dispose of this lot satisfactorily, you may rest assured of receiving further consignments from us. We have drawn on you at 15 days' sight, through Marion National Bank, for Eight Hundred Dollars. Awaiting your advices, and hoping soon to hear from you, we are

ACKNOWLEDGING RECEIPT OF CONSIGNMENT.—We have your favor of the 10th inst. giving notice of the shipment of 150 bbls. Apples per N. P. R. R. We are pleased to state that the fruit arrived in good order, and is now in store. Several barrels which have been opened prove the quality and packing satisfactory. We will forward account of sales as soon as closed out. We remain,

A FIRM TO THEIR SALESMAN.—We are in receipt of yours of the 24th inst. It is not our desire to be harsh with Thompson, but you can press him, and hint at legal proceedings, as no dependence can be placed upon his promises. Your success so far is very gratifying to us. Clemmons & Walker have intimated that they desire to reopen accounts with us, but we have not yet replied; find out their standing and responsibility and report. Inform us by telegram of your arrival in St. Louis.

REMINDING OF INDEBTEDNESS.

We herewith take liberty to remind you of your indebtedness to us. As the account has been standing since Sept. 12, 19..., we think that we have been exceedingly lenient, and would be pleased if a check could be sent for the amount ($71.25), and thus enable us to close our books. Please let us hear from you.

DECLINING TO SHIP ON CREDIT.—We would like very much to ship you goods, but under the circumstances must decline to do so, as we cannot afford to advance money to purchase cash goods. The mon-

BUSINESS LETTERS.

ey market here is very tight, and we are unable to get the accommodation from our banks sufficient for our requirements. In future all cash goods must be paid for as soon as shipped, as we cannot give time on them, the margin being so small.

SUSPENSION OF PAYMENTS.— Owing to causes beyond our control, we are compelled to inform you that we are obliged to suspend payments. A thorough examination convinces us of the impossibility of surmounting our difficulties. We are now balancing our books, and will send you a statement of our affairs when they have been completed. Until this is done we ask a suspension of judgment, again assuring you that our embarrassments arise solely in consequence of occurrences over which we had no control.

ENCLOSING ACCOUNT SALES.— We have the pleasure of sending you enclosed Account Sales of Butter and Pork shipped us on the 3d inst. The Net Proceeds, $1316.75, due per average September 17th, we have placed to the credit of your account; the result, we hope, will be satisfactory. We shall be pleased to receive further consignments from you, and will endeavor to dispose of them on the most advantageous terms.

INQUIRY FOR BAGGAGE.— On the 10th inst. I left Indianapolis on the 9 A.M. train, via L.E. & W. R.R., and arrived in this city at 9.30 P.M. yesterday. As customary, I gave my baggage check, No. 196, to the Express Agent on the train, taking his receipt therefor. He has just returned the check to me, saying that my baggage had not arrived. The trunk is a large sole-leather one, canvas covered, and having the initials "M.S., Chicago," on both ends. Please dispatch a "tracer" without delay, and when heard from, notify me at the above address.

REQUESTING EXTENSION OF TIME.— It is with undisguised vexation that I am compelled to acknowledge the delay in payment of your account, but I assure you it is unavoidable, as well as quite impossible for me to settle at present, by any means at my command, nor can I do so before the expiration of 60 days, at least, from date. As your letter is pressing, may I suggest a negotiable promissory note from me for that time. Humiliating as this proposition is to me, rest assured that it has been forced upon me through circumstances beyond my foresight or control, and is now made with a due sense of my responsibility.

REQUESTING ANOTHER TO MAKE PURCHASES.— Allow me to trespass upon your kindness by requesting you to make a few purchases for me. Please find enclosed Forty Dollars, and a memorandum of what I want. My urgent duties, combined with leaving an invalid mother in the care of servants, which require my personal attention, is my excuse for troubling you.

MARKET PRICE OF POULTRY.— Yours of recent date, inquiring for market prices of poultry, is at hand. We give you the following figures, which we trust will be satisfactory: Live chickens, 12 to 13c. for choice hens; roosters, 8 to 9; spring chickens $1.75 to $2.00 per doz., for small to good size; large chickens, $4 to $5. Live turkeys, 19 to 20c. per lb.— outside for fine hen turkeys. Live ducks, $3 to $3.50 per doz., with choice large at $4; by the lb. 10 to 12c. Live geese very dull at $6 per doz., for full feathered, and $4 for plucked. The market is likely to advance, and these prices are subject to change.

ERROR IN INVOICE.— We call your attention to an error in the extension of items in your last invoice, by which we are charged $79.15 more than the correct amount. Please correct the same, and oblige,

REPLY TO ABOVE.— Upon examination we find the amount charged in your account correct, and believe the error must have occurred in copying items from the Invoice Book. We enclose a correct invoice, and beg your indulgence for any seeming negligence.

ADVISING RECEIPT OF INVOICE.— We have your favor of 13th instant, inclosing Invoice and Bill of Lading. The goods are all that we desired; and for your promptness and care in filling our order, accept our thanks. Enclosed find in payment Draft on New York, at sight, for $1575 $^{00}/_{100}$. Please acknowledge receipt per return mail, and oblige,

SOLICITING CONSIGNMENTS.— We have your favor of 29th ult. in which you ask the mkt. rep't on potatoes, also expenses attending them, to which we reply — Burbanks and Early Rose are offered at from 45 to 60 cts. per bushel. Our commission is five per cent. on sales; the usual charges for Carting from boat to store, and Labor hire in store, amounting to two cents per bushel, are additional. We should be pleased to hear from you further, and will try to make satisfactory sales should you entrust us with your shipments.

INQUIRY AS TO STANDING.— Upon application of Mr. T.A. Rush, of Worden, Hicks & Co., of Fort Wayne, to enter into business relations with us, he suggests that we apply to you for information concerning the standing and responsibility of his firm. Any knowledge you may possess regarding them commercially, will be thankfully received; at the same time we beg to assure you that whatever communication you may be pleased to transmit will be used in confidence. We are, gentlemen,

FORWARDING SAMPLES.— As per your request of June 24th, we forward you to-day by sample post, a full line of samples of Torchon and Valenciennes lace at various prices. Should you conclude to order any of these goods, please return us the samples of the styles you wish, and, if possible, select at least two samples of each style, so that we may send one should the other be out of stock. Our styles of particular patterns of laces are sometimes exhausted, in which case we are careful to substitute other patterns for the ones selected.

DECLINING AN OFFER TO BUY.— We are in receipt of your favor of the 29th ult. We are under the necessity of declining to fill your order upon the terms proposed by you. Upon receipt of $500, we will ship the goods, with the understanding that the balance will be paid within 60 days from the date of shipment. Hoping that these terms will be satisfactory, we are

CHANGE OF FIRM.— Having decided upon and formulated terms of agreement, permit us to communicate to you an alteration which we propose making in our copartnership on the 1st of June ensuing. At that date our Mr. F.M. Wolford will retire, and the business of the establishment thenceforward will be carried on by the remaining partners, under the firm of Wilson, Hinkle & Co. Requesting the continuance of your favor and support, and assuring you that there will neither be a diminution of our means, nor a relaxation of our endeavors to conduct the extensive affairs of the firm on the usual scale, we subscribe ourselves,

REAL ESTATE INQUIRY.— At various times I have heard much said in praise of your beautiful city, especially concerning railroad facilities, and church and school advantages, and have concluded to make your town my permanent place of abode; provided I can locate myself suitably, inasmuch as I have a family to educate, and the various lines of railway radiating from your city will afford me the desired accommodations in my traveling agency. I write at present to learn your best terms for a residence containing not less than eight rooms, with about one acre of land attached, and situated not more than one mile from the post office. An early answer will oblige,

SOLICITING EMPLOYMENT.— Having learned through the kindness of a friend that you were in want of an assistant in your store, I respectfully offer my services, believing myself fully competent to perform the duties required. My expe-

FROM COPY BY THE AUTHOR.

BUSINESS LETTERS.

rience in your line of work has been considerable, and can give satisfactory and unquestionable references. Should you be favorably impressed with my application, I shall be happy to call upon you at any time you may please to appoint. An early answer will much oblige.

ADVISING OF SECURITY.—We are in receipt of your draft, accepted by the J. Oewing Co., for $1550.00, made payable on July 10th, next, to be held by us as collateral security for the payment of bill of exchange drawn by Henry Vineyard, dated May 21st, last, on Merrill, Ford & Co., of Westfield, which now lies under protest for non-acceptance, in the hands of Kendrick Bros., of Westfield, and we hereby engage to return said draft or its value in cash, upon receiving advice of the payment of the above bill of exchange for $1520.00, or if not paid, such part of the said sum of the $1550.00 as may exceed the amount of the said bill with re-exchange and charges thereon.

ASKING INFORMATION.—Will you have the kindness to give me some information in regard to ladies' suitings, flannels and sackings. I wish to add an assortment of these goods to my stock, and want to learn more about them. I have but recently opened a store in this place, and must confess that I have had but little experience in the dry goods business, and therefore, any information you can give me will be considered a favor, and may result in an order.

EMBARRASSMENT OF A FIRM.—We are under the painful necessity of informing you, that, after balancing our books, we find so considerable a deficiency, owing to a series of misfortunes during the past four months, that we are induced to submit our affairs to the inspection of our principal creditors. After a full investigation, these gentlemen have consented to appoint assignees for the liquidation of our outstanding debts, the sale of our property, and the due distribution of the proceeds amongst our creditors, in proportion to their respective claims on our estate. We indulge a hope that you will not object to this arrangement, but will immediately furnish the assignees, Messrs. A. B. Lambert and George Kring, with an abstract of your account current, for the purpose of having it compared with our books in order that the correct balance may be ascertained.

LETTER OF CREDIT.—We beg permission to introduce to you Mr. A. C. King in whose favor we have opened a credit for two thousand dollars ($2000). We have to request you that you will furnish him with what ever funds he may require to the available extent of this credit against his drafts at five days sight on ourselves. All drafts so negotiated should be indorsed on this credit, which will continue in force until May 1, 19... Requesting for Mr. King your best attention, we have the honor to be, Gentlemen,

ANOTHER FORM.—Be kind enough to credit Mr. C. N. Wilson for such selections as he may make, to an amount not exceeding Five Hundred Dollars ($500), for three months. Should Mr. Wilson neglect to settle at the proper time, I will become responsible for the payment of the same. Please inform me of the amount for which you give him credit, with the date when it becomes due; also forward me immediate notice, in default of payment.

REQUESTING TERMS.—Believing I can sell your goods to advantage, and having but recently started business in this place, I will be obliged if you will send me your price list and best terms. It is my purpose to buy chiefly for cash, but may want to buy on time occasionally. I have had considerable dealings with Messrs. Maxwell & Co., of your city, and you may call upon them for reference.

LETTER OF GUARANTY.—This will be handed you by Marion B. Reynolds, who visits your city to purchase his fall and winter stock of dry goods. We hereby guarantee payment of any credit that he may ask. Notify us promptly, in the event of any default.

REPLY TO DEMAND FOR PAYMENT. It is with undisguised vexation that I find circumstances such as to prevent my complying with your request for a remittance. Tightness in the money market and stagnation in business have alone prevented me from being as prompt as usual. However, as trade has improved lately, and as there is even prospect of a busy season, I must ask your indulgence for a short time, when I will surely close my account. Convinced of your reliance upon my probity and honor, I am,

TRANSMITTING ACCOUNT CURRENT. We are in receipt of your valued favor of the 27th ult., accompanied by my account current, and interest account to the 31st ult., which having been examined and found to be correct, the balance in your favor, $1775.50 has been passed to a new account in conformity. I inclosed please find your account current, with interest account to same date, balance in my favor, $2515.10, which upon examination, if found correct, you will please pass to my credit under date of 1st inst.

LOSS OF GOODS BY EXPRESS.—I beg to inform you that two packages of value, delivered to your company on the 21st inst. for transmission to Mr. A. S. Cole, of Wheeling, W. Va., have failed to arrive at their destination. In case the same does not reach him by the 30th inst., we shall forward duplicate contents of each package, and hold your company responsible for cost of articles and all damage resulting from delay. Hoping that your inquiries may lead to a discovery of their whereabouts before the above mentioned date, I am,

ORDERING GOODS.—Please forward to me, on receipt of this, per American Express, C.O.D., draw on me, as you may prefer,

2 Lancaster Spreads.....	$8.00
3 doz. Napkins.....	9.00
4 pairs Lady's Silk Hose....	10.00
	$27.00

I hope you will send those of best quality, and should the goods be satisfactory, I expect to give you additional orders soon.

REQUESTING RENEWAL OF NOTE.—My promissory note will be due on the 14th inst., but I regret to say that, owing to circumstances beyond my control, I fear that I shall not be able to meet it. May I therefore request that you will grant me the indulgence of a short renewal of (three months), when I doubt not of my means to take it up. Your compliance with this wish will confer an obligation upon

DECLINING TO LEND MONEY.—There is no one whom I would be more willing to oblige in any way than yourself; but, unhappily, I am at present so driven for funds that I am compelled to borrow in order to meet my own obligations. Under the circumstances I know you will take the will for the deed, and, hoping you may meet with help elsewhere, I am,

SOLICITING A LOAN.—Owing to a disappointment in the receipt of some money due me, I am exposed to a temporary embarrassment. The sum which would extricate me from this painful difficulty is not large, as $—— would be amply sufficient. Having an aversion to professional lenders, I prefer soliciting the aid of a friend. Can you grant me, then, the accommodation of the above sum, without in any way intrenching on your own convenience? If you can, you may depend upon it being reimbursed with strict punctuality by the 1st of June, next. A speedy reply to this request will greatly oblige,

INCLOSING AN INSTALLMENT. I herewith enclose the first half of a twenty dollar note, as an installment towards your bill. I much regret that I am unable to send the remainder, but hope that I shall be able to do so at an early date, as I am expecting to receive some money in a few days.

FRAME COPY BY Val Aufrecht

Business Letters.

TO OPEN AN ACCOUNT WITH A PUBLISHING HOUSE.—In as much as our business is rapidly on the increase, we are desirous of opening an account with your house, and would be obliged by your transmitting us a trade list of your publications, as well as some of your general catalogues. Our usual terms of settlement with other houses are as follows: (state them). If these terms are agreeable to your house, the favor of an immediate attention to our request will oblige.

PRESSING REQUEST FOR PAYMENT.—Being greatly disappointed in the receipt of sums due on account, we herewith enclose statement of account to date, showing a balance of Five Hundred and Fifteen Dollars ($515.00) in our favor, which you will see averages between 30 and 90 days. As we have large payments to meet by the 30th inst., we are under the necessity of urging greater promptness on your part in making remittance, and we trust you can favor us with a settlement in full, or the greater part of the acct. by the above date.

UNFAVORABLE REPLY AS TO RESPONSIBILITY.—We are in receipt of your favor of the 30 ult. It is with regret that we cannot give you any satisfactory information relative to the parties about whom you inquire. Our opinion of them is unfavorable.

FAVORABLE REPLY.—Replying to your favor of the 3rd inst., we have to say that the firm of Walton & Whisler, is in first rate standing, and in our opinion will assume no indebtedness for which they are not amply responsible. We have full confidence in both their solvency and integrity.

ENCLOSING NOTES FOR COLLECTION.

Enclosed find for collection,

Note of F. Meek, due Feb. 6/9, $710.00
" " S. Lodi, " " " 7/10, " 550.00

If paid, please remit draft for proceeds.

REPLY ENCLOSING TERMS.—In reply to yours of the 11th inst., we enclose price lists and our customary discounts. The market at present is quite active, and prices have an upward tendency. Any order with which you may favor us we will take pains to fill at the lowest market prices. We have called upon your references, and will send you anything which you may wish to order on credit on our regular terms.

SOLICITING A SITUATION.—When leaving here on the 7th of May, you were kind enough to promise that, should it be in your power to forward my interests in any manner, you would feel a pleasure in doing so. My former employer having sold his business, I am left without a situation; as his successor has sufficient assistance for all the work he is likely to have. If, therefore, you should hear of any situation or employment which you consider likely to suit me, either in my own business, that of a ——, or in any other in which I can make myself useful, your recommendation would greatly oblige, and be of material service to,

SEEKING A CLERKSHIP.—Perceiving by your advertisement, a copy of which is shown above, that you are in want of a clerk, I beg to enclose testimonials, and venture to hope that from my previous experience in the line of business which you pursue, I should be of some use in your establishment. My habits of life are such as to assure regularity in the discharge of my duties, and I can only assure you that, should you honor me with your confidence, I shall spare no pains to acquit myself to your satisfaction. I remain, gentlemen,

INQUIRY AS TO CHARACTER.—Will you pardon our request for information concerning the character and commercial standing of Lewis J. Bozell, of your place? Is he personally known to you as worthy of credit? As he proposes to make large purchases, an immediate reply will greatly oblige,

REPLIES TO ABOVE.

We have yours of the 19th inst. In reply we can say that from several years' acquaintance and business dealing with Mr. Bozell, that he is one whom we highly esteem, and is worthy of any credit he may at any time ask of you.

In reply to yours of the 19th inst., I can only say that, from the slight acquaintance with the party to whom you refer, received from general reports, I should hesitate to extend him credit without some other name as security.

SOLICITING AN AGENCY.—Having established myself here as a dealer in goods similar to yours, and having superior facilities for handling your goods, I am induced to apply for an agency in this city, believing that my abilities can be exerted to the advantage of your company. I am prepared to furnish satisfactory references and security of undoubted character. Requesting the favor of an early reply, I am,

DEATH OF A PARTNER.—It is with deep sorrow and regret that we are called upon to announce the sudden death of our respected principal, Mr. Charles Reed. The event occasions a change in the firm, but will cause no decrease of capital. The business will be conducted on the same general principles as heretofore, and we trust to the usual satisfaction of our correspondents. We beg to solicit a continuance of your esteemed correspondence, assuring you our undivided attention.

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MAN AND WOMAN.

CHARACTERISTICS.

Man is bold—woman is beautiful. Man is courageous—woman is timid. Man labors in the field—woman, at home. Man talks to persuade—woman, to please. Man has a daring heart—woman, a tender and loving one. Man has power—woman, taste. Man has justice—woman, mercy. Man has strength—woman, love.

AVERAGE WEIGHT AND STATURE AT DIFFERENT AGES.

MAN.			WOMAN.		
AGE-YEARS.	FEET.	LBS.	AGE-YEARS.	FEET.	LBS.
0 "	1.64	7.06	0 "	1.62	6.42
2 "	2.60	25.01	2 "	2.36	23.53
4 "	3.04	31.38	4 "	3.00	28.67
6 "	3.44	38.80	6 "	3.38	35.29
9 "	4.00	49.35	9 "	3.92	47.10
11 "	4.36	58.77	11 "	4.26	56.57
13 "	4.72	75.81	13 "	4.60	72.65
15 "	5.07	96.40	15 "	4.92	89.04
17 "	5.36	116.56	17 "	5.13	104.34
18 "	5.44	127.59	18 "	5.13	112.55
20 "	5.49	132.46	20 "	5.16	115.30
30 "	5.52	140.38	30 "	5.18	119.82
40 "	5.52	140.42	40 "	5.18	121.81
50 "	5.49	139.96	50 "	5.04	123.86
60 "	5.38	136.07	60 "	4.97	119.76
70 "	5.32	131.27	70 "	4.97	113.60
80 "	5.29	127.54	80 "	4.94	108.80
90 "	5.29	127.54	90 "	4.94	108.80

DEVELOPMENT AND DECLINE.

From birth to complete development a man increases 20 times in weight. An infant having a weight of 7 lbs. at birth, increases to a weight of about 21 lbs. at the end of the first year. Afterward the growth proceeds in a geometrical ratio up to the age of 12, when the weight has somewhat more than doubled. Continuing from 12 to 18 the ratio of increase remains about constant, after which the growth proceeds more slowly. At an equal age man is heavier than woman. Man attains his maximum weight at about the age of 40; woman at the age of 50. Man's average weight is 140 lbs.; woman's, 124. At 60 a man begins to lose his weight, and at 80 he has lost about 13 lbs., his stature having diminished nearly 3 inches. The average weight of both sexes in old age is what it was at the age of 19. On an average about two years of sickness is experienced by every person before attaining the age of 70, making an average of 10 days per annum for the sickness of human life. At about the age of 36 a lean man usually becomes fatter, and a fat man leaner. From the age of 43 to 50 the appetite weakens, the complexion fades, the muscles become flabby, sleep is more or less imperfect, and the spirit is drooping. After the age of 50 there is a renewed vigor until about the age of 62, when a similar change takes place.

FACTS ABOUT THE BODY.

The average chest measurement of adult male is 36 inches; drawing strength between the hands, 75 lbs.

The **skeleton** is one inch shorter than the measurement of the living person, and has a weight of about 14 lbs., there being 240 bones. The body contains about 28 lbs. of blood, about 2 lbs. of which pass through the heart at each beat. The blood passes through the lungs and is revivified by the oxygen of the air as bright red blood, after which it goes by the subdivisions of the arteries to every minute portion of the body, and returns, laden with impurities as dark venus blood, through the veins to the starting point—the heart.

The **heart** is a little larger than the fist, consists of four cavities—two auricles and two ventricles—and weighs about 10 ounces.

The **lungs** consist of about 174 million sacs or cells at the end of minute tubes that unite to form larger tubes, and these form the two bronchial tubes which unite in the windpipe, opening into the mouth and nose. About one gallon of air is taken into the lungs at each breath, the purpose being to oxygenate the blood.

The **stomach** lies beneath the lungs, near the center of the body, and is a sac of a capacity of about a pint (may be distended so as to contain a quart or more), in which the food is changed by the digestive juices and ferments.

The **liver** lies to the right and beneath the stomach. Its weight is from 4 to 5 lbs., and its office is to change the starch of the food into sugar, secrete bile, and otherwise aid in digestion.

The **spleen** lies to the left of the stomach, is about the size of the fist, weighs from 5 to 7 oz., and is supposed to exert an important effect upon the blood.

The **intestines**—the large about 8 ft. in length, and the small about 25 ft.—aid in the digestion of the food, and absorb its nutrient qualities into the lacteals and the blood.

The two **kidneys** weigh about 4½ oz.; about 1000 oz. of blood passes through them in an hour, and by them the waste fluid portions of the blood are strained out.

The **skin** also carries off the waste fluids of the body. The area of the surface of the body is about 2500 sq. in., and contains about 7 million pores, each about ⅛ of an inch long, making a total length of nearly 28 miles of pores.

The **pancreas** is an elongated and narrow organ situated crosswise in the abdominal cavity, just behind the lower border of the stomach. It secretes a fluid that aids in digestion.

The **muscles** are attached to the different parts of the skeleton in such a way as to control movements. They are composed of great numbers of microscopic fibres, running parallel, and united into bundles of from 100 to 200 each, which are again and again united into larger bundles. There are upward of 500 distinct muscles in the human body.

AGE OF WOMEN.

The delicacy as to mentioning the age of women is not a modern sensitiveness. Although great numbers of women are mentioned in the Old Testament, there is but one—Sarah, Abraham's wife—whose age is recorded. An amusing way of ascertaining the age of any person is found in the subjoined table. Request the person whose age is desired, to tell in which column or columns her age is contained, and add together the figures at the top of the columns in which her age is found, and the secret is discovered. Thus, suppose her age to be 17, you will find that number in the first and fifth columns; add the first figures of these two columns.

1	2	4	8	16	32
3	3	5	9	17	33
5	6	6	10	18	34
7	7	7	11	19	35
9	10	12	12	20	36
11	11	13	13	21	37
13	14	14	14	22	38
15	15	15	15	23	39
17	18	20	24	24	40
19	19	21	25	25	41
21	22	22	26	26	42
23	23	23	27	27	43
25	26	28	28	28	44
27	27	29	29	29	45
29	30	30	30	30	46
31	31	31	31	31	47
33	34	36	40	48	48
35	35	37	41	49	49
37	38	38	42	50	50
39	39	39	43	51	51
41	42	44	44	52	52
43	43	45	45	53	53
45	46	46	46	54	54
47	47	47	47	55	55
49	50	52	56	56	56
51	51	53	57	57	57
53	54	54	58	58	58
55	55	55	59	59	59
57	58	60	60	60	60
59	59	61	61	61	61
61	62	62	62	62	62
63	63	63	63	63	63

☞ By carefully noting the order of the numbers in the above table, you will see how to extend it so as to ascertain the ages of persons upward of 63 years.

Among women who have attained extreme old ages may be mentioned Mrs. Keithe, of Newnham, Eng., who reached the age of 133 years, and left three daughters whose ages were respectively 111, 110, and 109; Eleanor Spicer, of Accomac, Va., 121; Mrs. Garnier, Scottsville, N.Y., 104; Mrs. Thomas, Norristown, Pa., 102; Jane Scrimshaw, of England, 127; Mrs. Carter, Waltham, Eng., 101; Countess of Desmond, 140; Miss Haskell, W. Gloucester, Mass., 89.

More women live to be old than men.

MAN AND WOMAN CONTINUED

MARRIAGE AGE IN DIFFERENT COUNTRIES.

In Austria, 14 years for both sexes. Germany, the man at 18, the woman at 14. Belgium, the man at 18, the woman at 15. Spain, the man at 14, the woman at 12. France, the man at 18, the woman at 15. Greece, the man at 14, the woman at 12. Hungary—Catholics, the man at 14, the woman at 12: Protestants, the man at 18, the woman at 15. Portugal, the man at 14, the woman at 12. Russia, the man at 18, the woman at 16. Saxony, the man at 18, the woman at 16. Switzerland, the man at 14, the woman at 12. Turkey, at puberty.

CHEMISTRY OF THE BODY.

Subject the body of a person weighing 154 pounds, to the process, chemical analysis, and then set down the results in the usual way. It would read as follows:

	lbs.	oz.	grs.
Oxygen	111	0	0
Hydrogen	14	0	0
Carbon	21	0	0
Nitrogen	3	8	0
Phosphorus	1	12	180
Calcium	2	0	0
Sulphur	0	2	219
Fluorine	0	2	0
Chlorine	0	2	47
Sodium	0	2	116
Iron	0	0	100
Potassium	0	0	200
Magnesium	0	0	12
Silicon	0	0	2
Total	154	0	0

MASS AND WEIGHT OF THE BRAIN.

The human brain is larger and heavier than the brain of any other animal, except the larger whales and the elephant. Considerable variations exist in the size and weight of the human brain in the different races of mankind, also in individuals of the same race and in the two sexes. The heaviest brains occur in the white races, the average weight of the adult male brain being from 49 to 50 oz., and of the adult female 44 to 45 oz.; so that the brain of a man is on an average 10 per cent. heavier than that of a woman, the difference being a fundamental sexual distinction. The average weight of the brain in the newly born infant is 11.67 oz.; in the female only 10 oz. The brain continues to increase in weight until the ages from 25 to 40.

The brains of many distinguished men have been weighed: the brain of Cuvier weighed 64½ oz. of Dr. Abercrombie, 63 oz.; of Prof. Goodsir, 57½ oz.; of Spurzheim, 55oz.; of Sir J.Y. Simpson, 54 oz.; of Agassiz, 53.4 oz.; and of Dr. Chalmers, 53oz.

The chemical composition of the brain is as follows: Water, 75½ per cent.; Albuminous matter, 7 per cent.; Fat, 11½ per cent.; Salts, with a small amount of phosphoric acid, 6 per cent.

The size and weight of the brain do not give an exact method of estimating intelligence, and a high brain weight and great intellectual capacity are not necessarily correlated with each other. It seems certain, however, that if the brain weight falls below 30 oz., it is invariably associated with idiocy or imbecility. The idiot Gore's brain was only 10 oz. and 5grs. in weight, an that of the idiot Marshall weighed only 8½ oz.

CENTENARIANS.

Now women live to be old than men, but more men live to be extremely old than women. Married persons live longer than single. Dr. Rush states that he never met but one person over 80 years of age who had never been married.

Haller, who has collected the largest number of instances respecting the age of man, found the relative duration of life to be in the following proportion: Of men who lived from 100 to 110 years, the instances have been 1000; from 110 to 120, there have been 60; from 120 to 130, there have been 29; from 130 to 140, there have been 15; from 140 to 150, there have been 6; and as high as 169, there has been 1 instance. (Patriarchs excepted from above).

The following proportion, including both sexes, is from Hufeland: From 100 to 110, the instances have been 1300; from 110 to 120, the instances have been 277; from 120 to 130, the instances have been 84; from 130 to 140, the instances have been 26; from 140 to 150, the instances have been 7; from 150 to 160, the instances have been 3; from 160 to 170, the instances have been 2; from 170 to 185, the instances have been 3.

Easton in his *Human Longevity*, mentions the following old men: St. Patrick, 122; Attilla, 124; Lywarch Hen, 150; St. Coemgene, 120; Piastus, 120; Lewis Cornaro, 104; St. Anthony, 105; Alex. Stephens, 108; Donald Cameron, 130; Dr. Broughridge, 112; Peter McDonald, 109—his father, 116, and his grandmother, 107, Thomas Winslow, 146; Mr. Dobson, 139; Andrew Vidal, 124; John Weeks, 114.

Perhaps the most authenticated instance of long life is that of Thomas Parr, who was born in Shropshire, Eng., in 1483 and died at London in 1635, at the age of 152 years.

MARRIAGE AND LONGEVITY.

Women married at 25, live, on an average, four years longer than unmarried ones. 72 married women live to 45, for 52 unmarried. Among married men, 41 attain 45, for 18 unmarried. At 60, there are 48 married men to 11 unmarried. At 80, the numbers are 9 married for 3 unmarried.

APPEARANCE OF THE TEETH.

The TEMPORARY SET appear as follows:
Seventh month, the middle front.
Seventh to tenth month, the side front.
Twelfth to fourteenth month, the front grinders.
Fourteenth to twentieth month, the canine.
Eighteenth to thirty-sixth month, the back grinders.

The PERMANENT SET:
Six and a half years, the first grinders.
Seventh year, the middle front.
Eighth year, the two side front.
Ninth year, the first false grinders.
Tenth year, the back false grinders.
Eleventh to twelfth year, the canine teeth.
Twelfth to thirteenth year, the second grinders.
Seventeenth to twenty-first year, the wisdom teeth.

HUMAN STRENGTH.

An average man can lift with both hands 236 lbs.; he can support on his shoulders 330 lbs.; his strength is the greatest in raising a weight when his weight is to that of his load as 4 is to 3.

It has been proved by experiment that average men with 5ft. stature and 126 lbs. in weight, can lift vertically 156 lbs. 8 inches; 217 lbs. 1.2 inches. Others with 6.1 ft. stature and 183 lbs. in weight, can lift 156 lbs. 13 inches, and 217 lbs. 6 inches. By varied experiments the mean human strength is determined at 30 lbs., with a velocity of 2.5 ft. per second.

WOMEN'S CHANCES TO MARRY.

Of women between 50 and 56 years of age, statistics show that less than 3 in a thousand have a chance to marry; between 45 and 50, less than 4 in every thousand; between 40 and 45 years of age, about 25 in every thousand; between 35 and 40 years of age, less than 38 in every thousand; between 30 and 35 years of age, about 155 in every thousand; between 25 and 30 years of age, 180 in every thousand; between 20 and 25 years of age, 520 in every thousand; and between 15 and 20 years of age, 145 in every thousand.

WHAT'S YOUR NAME?

By use of the subjoined table, you may ascertain the name of any person, or of any place, provided the rules below the table are strictly observed.

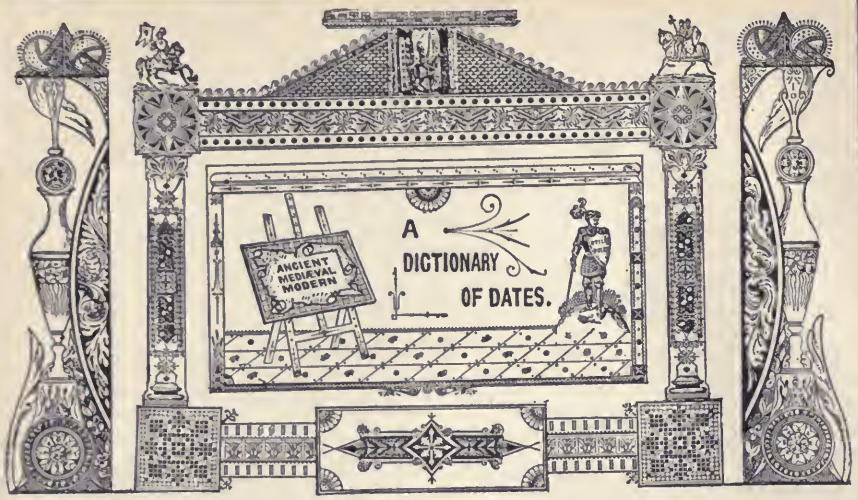
1 a	A	B	D	H	P	14 n
2 b	C	C	E	I	Q	15 o
3 c	E	F	F	J	R	16 p
4 d	G	G	G	K	S	17 q
5 e	I	J	L	M	T	18 r
6 f	K	K	M	N	U	19 s
7 g	M	N	N	O	V	20 t
8 h	O	O	T	U	W	21 u
9 i	Q	R	U	X	X	22 v
10 j	S	S	V	Y	Y	23 w
11 k	U	V	W	Z	Z	24 x
12 l	W	W	..	..	..	25 y
13 m	Y	Z	..	..	..	26 z

Have the person whose name you wish to know, inform you in which of the upright columns of capitals the first letter of the name occurs. If it is found in but one column, it is the top letter; if it occurs in more than one column, it is found by adding the alphabetical numbers of the top letters of the columns in which it is to be found, the sum being the number of the letter sought. Thus by taking one letter at a time, the whole name may be spelled out. Take the word *Jane* as an example. J is found in two columns beginning with B and H, which are the second and eighth letters of the alphabet; their sum is ten, and the tenth letter is J, the letter sought. The next letter is in but one column, the first, standing at the head. N is in the columns headed by B, D and H, which are the second, fourth and eighth letters of the alphabet; added, they give the fourteenth, or N, and so on.

The use of this table will excite no little curiosity among those unacquainted with the explanation.

MEN AT THEIR BEST.

From an analysis of the lives of a thousand, representative men in all the great branches of the human family, the discovery is made that the *golden decade* is between the ages of 40 and 50; the *brazen* between 20 and 30; and the *iron* between 50 and 60. The superiority of youth and middle age over old age in original work appears all the greater when we consider the fact that all positions of honor and prestige are in the hands of the old. Reputation is mainly confined to the old. Men are not widely known until long after they have done their work that gives them their fame. Portraits of great men are delusions; statues are lies! They are taken when men have become famous which, on the average, is at least 25 years after they did the work which gave them fame. Original work requires enthusiasm. If all the original work done by men under 45 were annihilated, they would be reduced to barbarism. Men are at their best at that time when enthusiasm and experience are almost evenly balanced. This period of course varies according to the circumstances and acquirements of the individual, but is, on an average, from the thirty-eighth to the fortieth year. After this period has passed, the law is that experience increases with each additional year, but enthusiasm correspondingly decreases.



ABACUS.—Arithmetical frame with sliding balls. First used by ancient Greeks, Romans, and Chinese. **Abbey.**—Monastery for men or women. First founded in France in 360; in England, 560. **Aberration** of Light. Discovered by James Bradley in 1727. **Abraham,** Era of.—Commenced Oct. 1, 2016 B.C. Used by Eusebius. **Abyssinian Era.**—Commenced Aug. 29, 5493 B.C. (O.S.). **Academies.**—From *Academia*, a shaded grove without the walls of Athens, where Plato first taught philosophy, 378 B.C. **Accents.**—First introduced in the Greek language, 264 B.C., by Aristophanes. **Accordion.**—Invented at Vienna by Damian, about 1829. **Acids.**—Nitric and sulphuric acids were known by Geber in the 8th century.

ACOUSTICS.—Science of sound. This science was explained by Pythagoras about 500 B.C. **Acrostic.**—A kind of poem, invented by Optalianus in the 4th century. **Actinometer.**—A heat-measurer of the solar rays, invented by Herschel about 1825. **Actresses.**—Unknown to the ancients. First performed in England about 1656. **Acts,** in dramatic poetry.—First employed by the Romans. **Adam and Eve,** Era of.—Same as Mundane (Usher) Era, commencing 4004 B.C. **Admiral.**—A title first adopted in England about 1300. **Adulteration** of Food.—First prohibited in England in 1267. **Adultery.**—Punished with death by the law of Moses, 1490 B.C.

ADVERTISEMENTS in Newspapers.—These first appeared about 1647, and became general in England in the 18th century. **Enigma.**—Samson's riddle, about 1141 B.C., is the first on record. **Æolian Harp.**—Its invention is ascribed to Kircher, in 1650. **Æolina.**—Reed wind-instrument, invented by Wheatstone in 1829. **Æsop's Fables.**—Written about 600 B.C. **Agriculture.**—Cain, who was born 4003 B.C., was the first "tiller of the ground." **Agricultural Societies.**—Instituted in 1723. **Air or Atmosphere.**—Pisodonius calculated its height to be 800 stadia (4854 feet) 798 B.C. Galileo discovered its pressure to be about 15 pounds per square inch in 1564. Priestly ascertained its composition to be about 77 parts nitrogen, 21 oxygen, and 2 parts other matter, in 1774.

AIR-BALLOONS.—Invented by a Jesuit, named Gusmac, in 1729. **Air-Brakes,** for railway cars.—Invented by Westinghouse, 1871. **Air-Guns.**—Invented by Guhr, of Nuremburg, 1656. **Air-Pipe.**—Invented by Mr. Sutton, of London, 1756. **Air-Pump.**—Invented by Guericke, of Magdeburg, 1650. **Air-Telegraph.** A speaking tube, invented by Guattari, 1870. **Alcohol.**—Pure spirit of wine or hydrated alcohol, is said to have been obtained by distillation, by Abucasis, in the 12th century. **Ale.**—First known as a beverage, 404 B.C. **Alexander,** Era of.—Dated from the death of Alexander the Great, Nov. 12, 323 B.C.

ALEXANDRIAN ERA.—Commenced Aug. 29, 5502 B.C. **Algebra.**—Diophantus, said to be the inventor, wrote upon it probably between the 3d and the 5th centuries. It was in general use in 1590. **Alkaline Metals.**—Discovered by Davy, 1807. **Almanacs.**—The Egyptians computed time by instruments, and the Alexandrians had log calendars. The first calendar written in England was John Somer's in 1380. **Almshouses.**—First one founded in England, by Van Dun, 1577. **Alphabet.** Athotes, son of Menes, is said to have been the author of hieroglyphics, 2122 B.C. Cadmus is said to have brought the Phœnician letters (15 in number) into Greece, about 1493 B.C. **Alum.**—A salt, first discovered at Roccha, in Syria, about 1300.

ALUMINIUM.—A metal discovered by Margograff, 1754. In 1827, Wöhler proved it to be a distinct metal. **Amber.**—A carbonaceous mineral, of great repute many centuries before the Christian era. **Ammonia.** Volatile alkali, discovered by Priestley, 1774. **Amphitheatres.**—First constructed by Curio, 76 B.C., and by Julius Cæsar, 46 B.C. **Amylene.** Colorless, mobile liquid, first procured by Balard, of Paris, 1844. **Anæsthesia.**—Loss of feeling by inhaling a vapor, discovered in 1844. **Anatomy.**—Erasistratus and Herophilus first dissected the human body, about 300 B.C. **Anchors.**—Invented by the Tuscans. Second fluke added by Anacharsis, 592 B.C.

DICTIONARY OF DATES.

ANEMOMETER.—Measurer of the velocity of the wind. Invented by Wolfius, 1709. **Aniline.**—Oily alkaline body. Discovered by Unverdorben, 1826. **Animal Magnetism.**—Introduced by father Hehl, a Jesuit, at Vienna, about 1774. **Annuities** or **Pensions.**—Introduced in England about 1512. **Anthems.**—Introduced into church service, 386. **Antimony.**—White, brittle metal, used to blacken the eyes and face, 884 B.C. **Antioch.** Era of.—Commenced Sept. 1, 5492 B.C. Used by early Christian writers. **Antipodes.**—Plato was the first to think of the existence of such, 388 B.C. **Anvil.**—First saw-maker's was brought to America, 1819.

APPLES.—Cultivated by the Romans, and, probably, introduced by them into England. From England into America by the early colonists. The crab is indigenous to America. **Apricot.**—Native of Asia. First planted in England about 1540. **Aqueduct.**—First Roman constructed by Appius Claudius, 312 B.C. **Arch.**—Appeared in early Egyptian and Assyrian architecture. **Archery.**—Practiced by ancient Thracians, Cretans, Parthians, and Numidians. **Archimedes Screw.**—Spiral pump. Invented by Archimedes, 267 B.C. **Areometer.**—Instrument to measure density and specific gravity of fluids. Described by Baumé, 1768.

ARGAND LAMPS.—Wick or gas burners giving circular flame. Invented by Argand, of Geneva, 1782. **Arithmetic.**—Said to have been introduced from Egypt into Greece by Thales, about 600 B.C. Oldest treatise, by Euclid, 300 B.C. **Armenian Era.**—Used by Armenians. Commenced July 9, 552. **Arms.**—Clubs were the first weapons; then followed the mace, battle-axe, pike, spear, javelin, sword and dagger, bows and arrows. See *any particular weapon in its proper order.* **Army.**—Ninus and Semiramis had armies amounting to nearly two millions of fighting men, 2017 B.C.

ARQUEBUS.—Introduced about 1520; supplanted by matchlock in 1567. Flint lock and musket invented, 1630. **Arsenic.**—Steel-gray brittle mineral, known to ancients. Chemical nature investigated by Brandt, 1733. **Arson.**—Punished by death by Saxons. **Artesian Wells.**—Known to ancients, and to Chinese at very early date. **Artillery.**—Heavy missiles, as cannon. First contrived by Schwartz, 1330. **Arundelian Marbles.**—At Oxford, containing chronology from 1582 to 355 B.C. Sculptured, 264 B.C. **Asbestos.**—Fossil stone, unconsumable by fire, made into cloth, 74 B.C., by the Egyptians.

CEN.	YR.	CHRONOLOGY.
1900		Twentieth century begins.
1800	61	Secession War in U.S. begins.
1700	76	**Declaration of Amer. Independence.**
1600	58	Death of Oliver Cromwell.
1500	18	Elizabeth, Queen of England.
1400	92	**Modern History begins.**
1300	76	Return of the Popes to Rome.
1200	15	Great Charter granted by John.
1100	66	Henry V., King of England.
1000	96	First Crusade to Palestine.
900	11	Ger. Princes assert their independence.
800	00	**Charlemagne, Emp'r of the West.**
700	55	Emirat of Cordova estab'd in Spain.
600	37	Jerusalem taken by the Saracens.
500	31	Great plague in Persia.
400	76	**Mediæval History begins.**
300	65	50,000 persons k'd by earthq'ke in Alex.
200	56	Goths ravage Greece, Candria.
100	13	Trajan's Column erected at Rome.
O		**I A.D. CHRISTIAN ERA BEGINS.**
100	50	Third Punic War.
200	10	China conquered by the Huns.
300	23	Death of Alexander the Great.
400	14	Egypt becomes independent.
500		**Authentic History begins.**
600	85	Second Messenian War.
700	43	First Messenian War.
800	70	Phœnicia conquered by Assyrians.
900	75	Death of Solomon, aged 60.
1000	44	Athens abolishes royalty.
1100	**93**	**Trojan War commences.**
1200	45	Israelites restored by Gideon.
1300	84	Corinth rebuilt, and so named.
1400	52	Pentateuch written by Moses.
1500	**56**	**Athens founded by Cecrops.**
1600	89	Death of Jacob, aged 147.
1700	73	Sacrifices introduced into Greece.
1800	91	Sodom and Gomorrah destroyed.
1900	**96**	**Birth of Abraham.**
2000	17	Dynasty of Theban kings begins.
2100	22	Hieroglyphics invented by Athotes.
2200	**47**	**Tower of Babel built.**
2300	**48**	**The Deluge of Noah.**
2400	50	Authentic Egyptian history begins.
2500	00	Chinese Empire said to have begun.
2600		
2700	00	Chinese state their first cycle begun.
2800		
2900	**48**	**Birth of Noah.**
3000		
3100	30	Lamech born, son of Methuselah.
3200		
3300	**17**	**Birth of Methuselah.**
3400		
3500	90	Art of embalming is practiced.
3600	79	Birth of Cainan, son of Enos.
3700		
3800	**75**	**Abel murdered by Cain.**
3900		
4000	**4**	**THE CREATION.**

ASCENSION, Era of.—Commenced Nov. 12, 295. **Asphalt.**—Bituminous substance. Used for building purposes in ancient Babylon. **Assay** of Gold and Silver.—Originated with the bishop of Salisbury, about 1125. **Astronomy.**—Earliest observations made at Babylon, 2234 B.C. **Asylums.**—Cadmus is said to have built one at Thebes, 1490 B.C. Jews built them, 1451 B.C. **Atlantic Cable.**—First plan made in June, 1845. First attempt to lay it, Aug. 5, 1857. Successfully laid in 1858, with message Aug. 5. Ceased to work, Sept. 4. Again successfully laid, 1866. **Atmosphere.** See *Air.* **Atoms.**—Democritus was the first to write on their existence, about 400 B.C. **Atwood's Machine.**—For proving the laws of accelerated motion by falling weights. Invented by Geo. Atwood, 1784.

AUCTION.—This kind of sale was known to the Romans, 400 B.C. **Augustan Era.**—Began Feb. 14, 27 B.C. **Automatic** Circuit Breaker.—Used in telegraphy. Invented by Gray, 1876. **Automatic** Valve Gear.—For steam engine. Invented by Patten, 1713. **Axe,** Wedge, Lever, and various tools in common use.—Said to have been invented by Dædalus, of Athens, about 1240 B.C.

BABEL, Tower of.—Built by Noah's posterity, 2247 B.C. **Bacchanalian Games.**—Arose in Egypt. Brought into Greece, 1415 B.C. **Bachelors.**—Taxed by Romans, and obliged to marry. Taxed in England, 1695 to 1706. **Backgammon.** Invented by Palamedes, 1224 B.C. **Bagpipe.**—Known to ancient Romans and Greeks. **Bail.**—Allowed in England prior to 1066. **Baize.**—Coarse woolen cloth. Introduced into England from Holland, 1660. **Ballads.**—Said to have been introduced into England by Adhelme, about 700. **Balloons.**—Principle of construction formed by Albert of Saxony in the 14th century. The first ascent in a fire (heated air) balloon was made by J. and S. Montgolfier, June 5, 1783. First ascent in hydrogen balloon, Aug. 27, 1783. **BALLOT.**—Secret voting by ballot was practiced by the ancient Romans and Greeks. **Banishment.**—A punishment common in ancient times. **Banks.**—First established in Italy by the Lombards, 808 B.C.; Bank of Venice, 1171; Bank of England, 1694; Bank of North America, 1781. **Banners.**—Common to all nations. Jews had them, 1491 B.C. **Barbers.**—Lived in ancient Greece and Rome. **Barium.**—First recognized as an earth distinct from lime by Scheele, 1774; as a metal, by Davy, 1808.

DICTIONARY OF DATES.

BAROMETERS.–Torricelli made the first barometer, about 1643. Wheel barometers invented, 1668; phosphoric, 1675; pendant, 1695; marine, 1700. **Barracks.**–Became numerous in England, about 1789. **Barristers** (lawyers).–Said to have been first appointed by Edward I. about 1291. **Bassoon.**–Wooden double-reed wind instrument, said to have been invented by Afranio, about 1520. **Bastile.**–French castle, built by Charles V., 1369. Pulled down by mob, 1789. **Bathometer.**–For measuring depth of water. Invented by Siemens, 1861. **Battering Ram.**–Invented by Artemon, a lacedæmonian, about 450 B.C.

BATTLE-AXE.–Weapon used by the Celts. Used at the battle of Bannockburn, 1314. **Bayonet.**–Invented at Bayonne, in France, about 1670. **Bazaars.**–Were known in the East as early as the 8th century. **Beads.**–St. Augustine mentions them, 366. **Beam** and Scales.–Used in England, 1309. **Beans,** Black and White.–Used by ancient Greeks and Romans for voting. **Beards.**–Egyptians did not wear them; the Assyrians did. Jews forbidden to mar their beards, 1490 B.C. **Bed.**–Ancients first slept on skins, afterwards on loose rushes, heather, or straw. Romans were first to use feathers. Air-cushion used, 218, and air-beds, 1550.

BEES.–The economy of bees was admired in the earliest ages. Eumelus, of Corinth, wrote a poem on bees, 741 B.C. **Beheading.**–Introduced into England, 1066, by William the Conqueror. **Bellows.**–Said to have been invented by Anacharsis, about 569 B.C. **Bells.**–Used by the ancient Jews, Greeks, and Romans. First known in France, 550. Used in churches by order of pope John IX., about 900, as a defence against thunder and lightning. **Benefice.**–Clerical benefices originated in the 12th century. **Benevolences.**–Forced loans. Claimed by the Anglo-Saxon sovereigns in the 6th century.

BESSEMER STEEL.–Invented, 1856, by H. Bessemer, by passing cold air through liquid iron. **Bible.**–The Old Testament, written by various inspired writers, is said to have been collected and arranged by Ezra between 458 and 450 B.C. **Bible Dictionaries.**–Calmet's, published in 1722, is one of the most remarkable. **Bible Societies.**–The Society for promoting Christian Knowledge, organized, 1698; Society for Propagating the Gospel in Foreign Parts, 1701; American Bible Society, 1817. **Bicycle.**–*See Velocipedes.* **Bigamy.**–The Romans branded the infamous party with a mark; punished by death in England, about 1250. **Billiards.**–Said to have been invented by Henrique Devigne, about 1571.

CHRONOLOGY.

GEN.	YR.	
1900	76	200th Anniversary Amer. Independence.
1800	80	St. Gothard Tunnel completed.
1700	98	Irish Rebellion broke out.
1600	18	First Russo-Turkish War begins.
1500	60	Civil War breaks out in France.
1400	92	**Columbus discovered America.**
1300	52	Aztec Kingdom, Mex., formed.
1200	61	Barons War in England begins.
1100	46	Second Crusade begun.
1000	66	**Battle of Hastings.**
900	92	Poland became a kingdom.
800	14	Death of Charlemagne, aged 72.
700	39	Constantinople besieged by Saracens.
600	22	**Mohammedan Era begins.**
500	40	June 20, Total eclipse of the sun.
400	65	Paris captured by the Franks.
300	38	Persian War, with Rome, begins.
200	52	Pestilence begins in Roman Empire.
100	31	Second Jewish War begins.
O	**4**	**B.C. BIRTH OF CHRIST.**
100	00	July 12, Birth of Julius Cæsar.
200	18	Second Punic War begins.
300	36	Accession of Alexander the Great.
400	11	Great famine in Rome.
500	20	Pythagoras gives laws to Greece.
600	25	Nineveh captured by the Medes.
700	53	**Rome founded by Romulus.**
800	14	Kingdom of Macedon founded.
900	71	Syria invaded by the Egyptians.
1000	50	Tyre the leading city of Phœnicia.
1100	81	Israelites restored by Jephtha.
1200	94	Sicily colonized by Etruscans.
1300	58	Eleusinian mysteries instituted.
1400	91	**Exodus of the Israelites.**
1500	81	First date on Arundelian Marbles.
1600	15	Ethiopians settle near Egypt.
1700	10	Arcadians emigrate to Italy.
1800	36	Birth of Jacob and Esau–twins.
1900	21	**Call of Abraham.**
2000	01	Semiramis usurps the government.
2100	15	Zoroaster founded the Magi.
2200	00	Hia dynasty founded in China.
2300	47	Shem, Ham, and Japheth, sons of Noah.
2400	48	Plans for the ark are given.
2500	00	An increasing disregard for law.
2600		
2700	00	Egyptian history said to begin.
2800		
2900	48	**Birth of Noah, son of Lamech.**
3000	74	Death of Adam, aged 930.
3100		
3200	04	Adam becomes an octo-centenarian.
3300	82	Enoch, son of Jared, is born.
3400		
3500	30	Embalming said to have been known.
3600	09	Mahalaleel is born.
3700		
3800	75	Punishment of Cain.
3900		
4000	4	**The institution of Marriage.**

BILLS OF EXCHANGE.–Invented by the Jews, 1160; used in England, 1307. **Binary Arithmetic.**–Counting by twos, for expeditiously ascertaining the property of numbers, and constructing tables. Invented by Leibnitz, about 1703. **Binomial Root.**–In Algebra, a term first used by Recorda, about 1550. **Births.**–The births of children were taxed in England, 1695, and again, 1783. **Bismuth.**–Recognized by Agricola as a distinct metal, 1529. **Black Death.**–Raged in Italy, 1340. **Black Friday.**–In England, May 11, 1866. **Black Letters** (Gothic).–Employed in the first printed books, about 1450.

BLACK MONDAY.–Easter Monday, April 13, 1360. **Blank Verse.**–*See Verse.* **Blankets.**–Said to have been first made in Eoland by Thos. Blanket, 1340. **Blasphemy.**–Punished with death, 1491 B.C. **Bleaching.**–Known in ancient Egypt, Syria, and India. **Blind Asylum.**–First established by Valentine Haüy, at Paris, 1784. **Blisters.**–Made from cantharides, used by Hippocrates, 460 B.C. **Blockade.**–First introduced by the Dutch, about 1584. **Blocks.**–In ship rigging, much improved by Walter Taylor, about 1781.

BLOOD.–Circulation through the lungs, known to Servetus, a Spanish physician, 1553. Positive discovery made by Harvey, 1619. **Blowing Machines.**–In iron works, erected by Mr. Smeaton, in England, 1760. **Blow-pipe.**–Supposed to have been invented by the Egyptians, about 1200 B.C. Oxyhydrogen blow-pipe invented by Mr. Hare, 1802. **Blue, Prussian.**–First made in Berlin, 1704. **Boats,** Flat-bottomed.–First used in England, about 1070. **Boilers,** Tubular.–First made in Blackley, 1764. **Boiling.**—Dr. Hooke, about 1683, ascertained that liquids were not increased in heat after beginning to boil.

BOMBS.–Said to have been invented at Venlo, 1495. **Bones.**–Art of softening, discovered, about 1688, and used in cutlery manufactories just afterward. **Bone-setting.**–First scientifically practiced, 1620. **Books.**–Originally made of boards, or the inner bark of trees; then of skins or parchment. Papyrus adopted in Egypt. Books with leaves of vellum were invented by Attalus, king of Pergamus, about 198 B.C., at which time books were in volumes or rolls. The first printed books (*see Printing*) were printed on one side only, the leaves being pasted back to back. The first bound book is said to have been made about 650.

DICTIONARY OF DATES.

BOOK-BINDING.–Oaken boards were used from 650 to about 1100; velvet, about 1350; vellum introduced about 1510; leather introduced about 1520; cloth binding came into use about 1830. **Book-Keeping.**–John Gowghe's, published, 1543, is the earliest. **Book-sellers.**–At first migratory like hawkers; afterwards had booths or stalls at the corners of streets or in markets. First book-seller's catalogue, 1595. **Boots.**–Invented in 907 B.C. **Boot-Blacks.**–Came into vogue, 1750. **Boot-sole Sewing Machine.**–Invented, 1858, by Blake. **Borax.**–Known to ancients. Its chemical nature discovered, 1732, by Geoffrey.

BOTANY.–Aristotle is considered the founder of the science, about 347 B.C. **Bottles.**–Anciently they were made of leather. Made of glass by Romans, 79 A.D. **Boxing,** or Prize-Fighting. First practiced by the ancient Romans. **Bracelets.**–Worn by ancients; those of pearls and gold, by Roman ladies. **Brandy.**–First manufactured in France, about 1350. **Brass.**–Known to ancients, and frequently mentioned in Bible. **Bread.**–Said to have been first made from wheat, 1998 B.C., by the Chinese; first made with yeast by the English, about 1650.

BREAST-PLATE.–Worn by Jewish high priests, 1491 B.C. Goliath was armed with a coat of mail, 1063 B.C. **Breeches.**–Among ancient Greeks, worn only by slaves; worn by Dacians and Parthians; worn in Italy, 50 B.C. **Breech-loaders.**–Many tried and abandoned since about 1590. Successfully manufactured since 1850. **Brewers.**–Traced to Egypt; known to Anglo-Saxons, 650. **Bribery.**–Samuel's sons guilty of it, 1112 B.C. **Bricks.**–Known and used in Babylon, Egypt, Greece, and Rome. Made in England by Romans, 44 A.D. Brick machine invented by Cooke and Cunningham, 1839. **Bridges.**–At first made of wood. In China, ancient stone bridges exist. Xerxes' bridge of boats across the Hellespont, 480 B.C. First large iron bridge in England, 1777. Chain suspension bridge, 1825. Tubular suspension bridge, 1846.

BROCADE.–Variegated silken fabric, originally made by the Chinese; made in France, 1757. **Bromine.**–Poisonous volatile liquid element, discovered by M. Ballard, 1826. **Bronze.**–Known to ancients. **Bucklers.**–Used in single combat, said to have been invented by Prœtus and Acrisius of Argos, about 1370 B.C. **Buckles.**–Worn instead of shoe-strings, 1630; became fashionable and expensive soon afterward.

CHRONOLOGY.

CEN.	YR.	
1900	92	500th Anniversary of Discovery of Amer.
1800	61	Kingdom of Italy established.
1700	76	Sept. 9, United States first so called.
1600	72	Coalition against the United Provinces
1500	**82**	**Calendar corrected by Gregory XIII.**
1400	11	Civil War breaks out in France.
1300	81	Wat Tyler's insurrection in England.
1200	65	First Parliament in England.
1100	63	Berlin, Germany, founded.
1000	76	Jerusalem taken by the Turks.
900	36	Great earthquake in Constantinople.
800	**60**	**Kingdom of Navarre founded.**
700	87	Danes first land in Britain.
600	32	Death of Mohammed, aged 62.
500	68	Italy invaded by the Lombards.
400	51	Gaul invaded by Attila, the Hun.
300	67	London sacked by Scots and Picts.
200	39	Goths ravage Asia Minor.
100	35	Jews banished from Judea.
O	**33**	**A.D. CRUCIFIXION OF CHRIST.**
100	46	Greece becomes a Roman province.
200	47	Hannibal, Carthaginian gen'l, born.
300	41	War between Macedon and Athens.
400	30	Great plague in Asia and Egypt.
500	**59**	**Persian Empire founded by Cyrus.**
600	25	Assyrian Empire conquered by Medes.
700	21	Israel conquered by Assyrians.
800	83	Lycurgus legislates in Sparta.
900	56	Buddhism introduced into India.
1000	48	Jerusalem made David's capital.
1100	80	Ulysses arrives in Sicily.
1200	**50**	**Babylon conquered by Assyrians.**
1300	13	Mycenæ, Greece, founded.
1400	26	Death of Joshua, aged 110.
1500	25	Shepherd kings expelled from Egypt.
1600	89	Jacob blesseth his sons.
1700	64	Deluge of Ogyges, Attica.
1800	**91**	**Letters invented by Egyptians.**
1900	38	Lake Mœris, Egypt, constructed.
2000	17	Ninyas (infant) succeeds Ninus.
2100	85	Serug, son of Reu, born.
2200	45	Nimrod reigns in Assyria.
2300	45	Birth of Ham, father of Black Race.
2400	**50**	**First Pyramids commenced.**
2500	00	World is becoming very wicked.
2600		
2700	14	Death of Mahalaleel, aged 895.
2800	17	500th year of Methuselah.
2900		
3000	**30**	**Lamech is 100 years old.**
3100		
3200	00	Gold used before this time.
3300	82	Enoch, son of Jared, is born.
3400		
3500	44	Birth of Jared, son of Mahalaleel.
3600	79	Cainan, son of Enos, is born.
3700		
3800	75	Cain the first fugitive and vagabond.
3900		
4000	4	Skins the first articles of dress.

BULLETS.–Made of stone, 1514; of iron, 1550; of lead, after 1600. **Bullion,** Assaying of.–Introduced, 1354. **Burials.**–Abraham buried Sarah at Machpelah, 1860 B.C.; the first Christian burial place said to have been instituted, 596; vaults first erected in England, 1075. **Burning Alive.**–Practiced by ancient Romans, Jews, and other nations, and countenanced by bulls of the pope. **Burning** the Dead.–Practiced by the Greeks and Romans; it was general, 1225 B.C. **Burning Glasses.**–Archimedes, by their aid, is said to have burned a fleet in the harbor of Syracuse, 214 B.C.

BURYING ALIVE.–In Bœotia, Creon ordered Antigone to be buried alive, 1225 B.C. Romans practiced it for certain offenses. **Bushel.**–Ordered to contain eight gallons of wheat, 1520; Winchester bushel adopted, 1697. **Busts.**–Lysistratus was the inventor of moulds, from which he cast wax figures, 328 B.C. First made of plaster of paris from the face by Verrochi, about 1466. **Butter.**–Used by Romans and Greeks as a medicine only; used, about 300 A.D., in the place of oil for lamps. Oleomargerine was invented by Monriés, in Paris, 1869. **Buttons.**–First manufactured in England, about 1500.

CABLES.–Machine for making them, invented, 1792. **Cable Railway,** Underground.–Invented by Hallidie, of San Francisco, 1871. **Cabs.**–Introduced into London, 1823. **Cadmium.**–Metal, discovered by Stromeyer and Hermann, 1818. **Cæsars,** Era of (Spanish Era).–Reckoned from Jan. 1, 38 B.C. **Cæsium.**–A rare metal, discovered by Bunsen, 1861. **Calcium.**–Metallic base of lime, discovered by Davy, 1808. **Calculating Machines.**–To avoid making errors in computations. Pascal invented one about 1650. **Calendar.**–Roman calendar, dividing the year into ten months, comprising 304 days, introduced by Romulus, 738 B.C.; Numa Pompilius added two months, 713 B.C.; Julius Cæsar fixed the solar year at 365¼ days, every fourth year being leap-year, 45 B.C.; Pope Gregory ordained, 1582, that every fourth year, except centesimal years not exactly divisible by 400, should be a leap-year.

CALICO.–Cotton cloth, named from Calicut, India, and first brought from the East, 1631. Calico-printing and the Dutch loom engine first used in England, 1676. **Caliper Compass.** To measure bore of cannon, small arms, etc., invented at Nuremberg, 1540. **Cali Yuga.**–Hindoo era of the Deluge, which commenced with 3101 B.C.

DICTIONARY OF DATES.

CALOMEL.–First prepared by Beguin, 1608. **Calotype Process.**–By which negative photographs are produced on paper, invented by H.F. Talbot, about 1840. **Cambric.**–First made at Cambrau; worn in England as a luxury, 1580. **Camera Lucida.**–Invented by Dr. Hooke, about 1674. **Camera Obscura.**–Invented by Baptista Porta, 1515. **Camp.**–The first camp was that of the Hebrews, 1490 B.C. **Canals.**–First English navigable canal finished, 1134; imperial canal in China, 2000 miles long, commenced about 1250. **Candles.**–Of tallow, took the place of fatted splinters about 1300.

CANDLESTICKS.–Bezaleel made one of gold for the tabernacle, 1491 B.C.; first used in England, 959. **Cannibals.**–Mentioned by Homer and Herodotus; Columbus found them in the West Indies, 1493. **Cannon.**–Invented, 1330; first cast in England, 1543. **Cantharides.**–Venomous beetles, employed to raise blisters as early as 50 B.C. **Caoutchouc** (India Rubber).–Observed in Hayti, 1493, by Columbus; introduced into Europe from America, about 1735. **Capillary Attraction.**–Rising of fluids in very small tubes, as the sap in plants, said to have been first observed by Aggiunti of Pisa, about 1620.

CAPITAL PUNISHMENT.–Ordained for murder, 2348 B.C. **Caps and Hats.**–Came into general use, about 1450. **Capstan.**–To work ships' anchors, said to have been invented, about 1690, by Samuel Morland. **Car.**–Invention ascribed to Erichthonius of Athens, 1486 B.C.; covered cars used by Romans. **Carbolic Acid.**–Obtained by the distillation of pit-coal, by Laurent, 1846-7. **Carbon.**–Shown to be distinct element by Lavoisier, 1788. **Carbonic Acid Gas.**–Liquefied by atmospheric pressure, 1823, by Faraday. **Carding.**–English patent, 1748. **Cards**, Playing.–Origin of game uncertain; brought to Viterbo, Italy, 1379; illuminated for Charles VI. of France, 1392.

CARPETS.–Used in East in ancient times; introduced into France about 1600. **Carriages.**–Erichthonius of Athens is said to have produced the first chariot about 1486 B.C.; introduced into England, 1555. **Carrots.**–Brought from Holland to England, about 1510. **Cast-iron Mill-work.**–Introduced into England 1752. **Cast Steel.**–Krupp's patent, 1851. **Cat.**–Domestic cat supposed to be derived from the European wild cat; sold for high prices during the middle ages. **Catacombs.**–Early depositories of the dead; built in Egypt before 1200 B.C.; early Christians met at Rome in the catacombs for worship.

CHRONOLOGY.

CEN.	YR.	
1900	63	100th Anniversary Emancipation Proclamation.
1800	70	Franco-German War begins.
1700	33 to 35	War of Polish Succession.
1600	93	Great famine in France.
1500	65	Revolt of the Netherlands.
1400	55 to 85	War of Roses in England.
1300	70	Apr. 22., First stone of Bastile laid.
1200	70 to 72	Eighth Crusade.
1100	70	Dec. 29, Assassination of Thos. a' Becket.
1000	76	Jan. 24, Diet of Worms deposes the pope.
800	62	Munich, Bavaria, founded.
800	72	London captured by the Danes.
700	94	Sweden becomes independent kingdom.
600	38	Persia invaded by the Arabs.
500	29	Apr. 7., Justinian Code promulgated.
400	52	Venice, Italy, founded.
300	73	Birth of Succoth (St. Patrick).
200	56	Roman Empire attacked on all sides.
100	20	Marian visits Gaul and Britain.
0	27	B.C. OCTAVIUS EMPEROR OF ROME.
100	46	Carthage destroyed by Scipio.
200	15	Alliance between Hannibal and Philip.
300	34	May 22, Battle of the Granicus.
400	14	Syracuse besieged by Athenians.
500	21	Darius succeeds to Persian throne.
600	06	Nebuchadnezzar invades Syria.
700	76	July 1. Era of Olympiads begins.
800	56	Jehu, king of Israel, dies.
900	74	Greek colonies founded in Italy.
1000	63	David slays Goliath.
1100	20	Thebans abolish royalty.
1200	13	Helen stolen by Theseus.
1300	04	Israelites conquered by Jabin.
1400	90	Sparta, Greece, founded.
1500	74	Birth of Aaron, brother of Moses.
1600	34	Book of Genesis closes.
1700	28	Joseph sold into Egypt.
1800	22	Egyptian alphabet invented.
1900	20	Abraham visits Egypt.
2000	69	Ninus, son of Nimrod, reigns in Assyria.
2100	11	Thebes, Egypt, founded by Busiris.
2200	18	Nineveh founded by Ashur.
2300	46	Arphaxad, son of Shem, is born.
2400		
2500	68	God threatens the flood.
2600		
2700	69	Cainan dies, aged 910.
2800		
2900	62	Seth dies, aged 912.
3000		
3100	30	Lamech, son of Methuselah, is born.
3200		
3300	82	Enoch, son of Jared, is born.
3400		
3500	44	Jared, son of Mahalaleel, is born.
3600		
3700	69	Enos, son of Seth, is born.
3800	76	Cain made an offering of fruit to God.
3900		
4000	4	Man given dominion over the earth.

CATAPULTÆ.–Military engines for throwing stones, darts and arrows, invented by Dionysius, 399 B.C. **Catechisms.**–Said to have been first compiled about 800. **Caucus.**–Private political meeting, first mentioned by John Adams, 1763. **Cauliflower.**–Brought from Cyprus to England, about 1603. **Caustic**, in Painting.–Burning colors into ivory or wood, invented by Gausias of Sicyon, about 335 B.C. **Cavalry.**–Used by Canaanites in war, 1450 B.C.; Persians had 10,000 horse at Marathon, 490 B.C. **Cavendish Experiment.**–Described by Henry Cavendish, 1798, for determining the mean density of the earth.

CELERY.–Introduced into England, 1704. **Celibacy.**–Preached by St. Anthony in Egypt about 305; rejected in the council of Nice, 325. **Cell Theory.**–Propounded by Schwann, 1839. **Cement** (Roman).–Parker's patent, 1796. **Census.**–Israelites numbered by Moses, 1490 B.C.; by David, 1017 B.C.; Phalereus took a census of Attica, 317 B.C.; law enacted by Tullius, 566 B.C. **Century.** Computing time by centuries commenced from the incarnation of Christ, and first adopted in chronology in France.

CEREMONIES, Master of.–Office instituted in England, 1603. **Ceres.**–Planet, discovered by Piazzi, Jan. 1, 1801. **Cerium.**–Rare metal, discovered by Klaproth, 1803. **Chain Bridges.**–Oldest in world in China; first in England built 1818-25. **Chain Cables.**–Used by the Veneti, 57 B.C.; came into use in English navy, 1812. **Chain Pumps.**–First used in 1787 on the British frigate *Flora*. **Chain Shot.**–Invented by the Dutch admiral, De Witt, 1666. **Chanting** the Psalms.–Adopted by Ambrose from the pagan ceremonies of the Romans, about 350. **Charcoal Air-Filters.**–Devised by Dr. Stenhouse, F.R.S., 1853. **Chariots.**–First made by Erichthonius, about 1486 B.C.; chariot racing was a favorite Greek exercise.

CHARTERS.–First granted to corporate towns by Henry I. in 1132. **Charts and Maps.**–Anaximander of Miletus is said to have been the inventor of geographical and celestial charts, about 570 B.C. **Chassepot Rifle.**–Modified needle gun, and breech-loader, invented by Alphonse Chassepot, 1863. **Checkers.**–See Draughts. **Cheese.**–Mentioned by Aristotle, about 350 B.C.; English said to have learned cheese-making from the Romans about 1 A.D. **Chemistry.**–As an art it is very ancient; as a science it originated about 1600; introduced by the Moors into Spain, about 1150. **Cherry.**–Brought from Pontus to Rome, about 70 B.C.; first planted in Britain, about 100 A.D.

DICTIONARY OF DATES.

CHESS.—A game attributed to Palamedes, 680 B.C. **Chilled Shot.**—Capt. Palliser, by experiment, 1864, showed that iron shot cast in cold iron moulds instead of hot sand, equals steel. **Chimes on Bells.**—Invented at Alvest, 1487. **Chimneys.**—First introduced into England, about 1200, previous to which chafingdishes (portable grates) were used. **China Ware.**—Made at Dresden, Saxony, 1706; in England, 1752. **Chivalry.**—Arose out of the feudal system, about 775. **Chloral Hydrate.**—Compound of chlorine and alcohol, producing deep sleep. Discovered by Liebig, 1831; reported to the French Academy of Sciences by Liebreich, Aug. 16, 1869.

CHLORINE.—Gas first obtained by Scheele, 1774; Davy proved it to be an element, 1810. **Chloroform.**—Discovered by Souberan, 1831; first applied as an anæsthetic by Doctor Simpson, 1847. **Chlorozone.**—Disinfectant, introduced, 1873. **Chocolate.**—Introduced into Europe from Mexico and Brazil, about 1520. **Choir.**—First introduced into the churches of England, 677. **Chorus-Singing.**—Practiced at Athens, 508 B.C. **Christian Era.**—Commenced Jan. 1, 1 A.D. Invented by a monk, Dionysius Exiguus or Denys le Petit, about 532.

CHRISTIANITY.—The name Christian was first given to the disciples of Christ at Antioch, in Syria, 43. **Christmas-Day.**—Said to have been first kept, 98; ordered to be held as a solemn feast, by pope Telesphorus, about 137. **Chromium.**—Rare metal, discovered by Vauquelin, 1797. **Chromo-Lithography.**—See *Printing in Colors*. **Chronicles.**—Earliest are those of the Jews, Chinese, and Hindoos. **Chronology.**—Arrangement and exhibition of the events of history in the order of their succession. (See central columns). Blair's Chronology, compiled in 1753, is one of the earliest. **Chronometer.**—See *Clocks* and *Harrison's Time Piece*.

CHRONOSCOPE.—For measuring small intervals of time. Invented by Wheatstone, 1840. **Cider.**—Called wine when first made in England, about 1284. **Cigar Ship.**—Steam yacht, designed by Mr. Winan, 1866. **Cinchona.**—Bark from the cinchona tree, having the property of curing fevers. (Called also Jesuit's Bark). Said to have been discovered by a Jesuit, about 1535. **Cinnamon.**—Species of laurel, mentioned among the perfumes of the sanctuary, 1491 B.C. Found in American forests by don Ulloa, 1736. **Cipher.**—Secret manner of writing, said to have been first used by Julius Caesar, about 60 B.C. **Circle,** Ratio of Diameter to Circumference.—Archimedes, 221 B.C., gave it as 7 to 22; Lagny, 1719, 1 to 3 and 122 decimals.

CHRONOLOGY.

GEN.	YR.	
	1900	32. 200th Anniversary of birth of Washington.
	1800	13. War of Liberation in Germany.
	1700	75-83. American Revolution.
	1600	07. Jamestown first perm't Eng. col. U.S.
	1500	29. Protestants first so called.
	1400	**23. The earliest dated printing.**
	1300	78. "Great Schism of the West" begins.
	1200	41. Hanseatic League against pirates.
	1100	47. Moscow, Russia, founded by Dolgorouki.
	1000	35. Kingdom of Aragon founded.
	900	36. Dietrich I. first count of Holland.
	800	**40. Division of Empire of the West.**
	700	82. Charlemagne massacres 4500 Saxons.
	600	23. Mecca conquered by Mohammed.
	500	34. Africa becomes a Roman province.
	400	70. Euric, the Visigoth, conquers Spain.
	300	60. Paris is named Parisii.
	200	59-14. Thirty aspirants to Roman throne.
	100	40. Dublin (Ashclel) Ireland founded.
	O	**67. A.D. PETER AND PAUL PUT TO DEATH.**
	100	23. Oct. 19, Era of Tyre begins.
	200	13-5. First Macedonian War.
	300	42. Philip extends his conquest to Thrace.
	400	21. Plataea taken by the Spartans.
	500	**85. May 28, Eclipse of sun—nearly total.**
	600	59. Byzantium (Constantinople) found'd.
	700	13. Year first divided into 12 months.
	800	72. Art of sculpture in marble discov'd.
	900	16. Rhodians first maritime power.
	1000	55. Death of Saul—David made king.
	1100	22. Third dynasty of China begins.
	1200	22. Olympic games celebrated by Hercules.
	1300	00. The Lupercalia instituted.
	1400	**06. Iron discovered in Mt. Ida, Crete.**
	1500	31. Flight of Moses into Midian.
	1600	89. Joseph dies, aged 110.
	1700	59. Jacob marries the two daughters of Laban.
	1800	56. Argos, Greece, founded by Lanchus.
	1900	21. Abram sojourns in Canaan.
	2000	69. Ninus names his capital Nineveh.
	2100	**88. Memphis, Egypt, founded by Misraim.**
	2200	17. Reu, the son of Peleg, is born.
	2300	49. Noah entered the ark.
	2400	48. Noah reaches his 500th year.
	2500	82. Death of Jared, aged 962.
	2600	
	2700	69. Cainan reaches his 910th year.
	2800	
	2900	48. Noah, son of Lamech, is born.
	3000	**17. Enoch is translated, aged 365.**
	3100	30. Methuselah attains his 187th year.
	3200	
	3300	82. Birth of Enoch, son of Jared.
	3400	
	3500	44. Mahalaleel begat Jared.
	3600	09. Cainan is 70 years old.
	3700	
	3800	76. Cain settles in the land of Nod.
	3900	
	4000	**4. Institution of the Sabbath Day.**

CIRCULATING LIBRARIES.—Common in the middle ages. **Circulation** of Blood.—See *Blood*. **Circumcision.**—Instituted 1897 B.C. **Circumnavigators.**—Magellan was the first in 1519. See list elsewhere in this book. **Circus.**—Eight or ten at Rome, about 600 B.C. **Clarendon Press.**—At Oxford, erected by sir John Vanbrugh, 1711-13. **Clarion.**—A first a trumpet, said to have been invented by the Moors in Spain, about 800. **Clarionet.**—Reed wind instrument, said to have been invented by Denner of Nuremburg, about 1690. **Clavichord.**—Keyed-stringed instrument, in use first about 1520. **Clearing House.**—First in London, 1775.

CLEPSYDRA.—Water clock, introduced at Rome, about 158 B.C., by Scipio Nasica. **Climacteric.**—Certain periods in a man's life (multiples of 7 or 9), in which it is affirmed notable alterations in the health and constitution of a person happen, and expose him to imminent dangers. The grand climacteric is 63, 7 and 9 ranking next. Referred to by Hippocrates, 383 B.C. **Clock.**—See *Clepsydra*. Clocks said to have been found by Cæsar on invading Britain, 55 B.C. Earliest complete clock said to have been made by a Saracen mechanic, about 1368; pendulum clock invented by Huyghens, 1657.

CLOTH.—See *Calico* and *Woolen Cloth*. **Clouds.**—Classified as at present by Mr. Luke Howard, 1803. **Clubs.**—At first consisted of a small number of persons of kindred tastes and pursuits. One of the earliest was that established by Shakspeare, Raleigh, and others, about 1600. **Coaches.**—First used in England about 1553. **Coal.**—First dug for fuel in England, 1234. **Cobalt.**—A rare mineral, first distinguished as a metal by Brandt, 1733. **Cock-Fighting.**—Practiced by the Greeks; introduced into England by the Romans, about 60 A.D. **Codes.**—Alfrenus Varus first collected the Roman laws about 66 B.C. See *Laws*.

COD-LIVER OIL.—First recommended as a remedy for chronic rheumatism by Dr. Percival, 1782. **Coffee.**—Introduced from Mocha, Arabia, into Holland, about 1616, and the tree was taken to the West Indies, 1726. **Coffins.**—Cedar coffins were used for the Athenian heroes; of marble and stone, by the Romans; Alexander is said to have been buried in one of gold; glass coffins have been found in England; air-tight metallic coffins first made, 1861. **Coin.**—Homer speaks of brass money, 1184 B.C. The invention of coin is ascribed to the Lydians, whose money was of gold and silver. Both were coined by Pheidon, 862 B.C. Gold first coined in England, 1087.

DICTIONARY OF DATES.

COINING.–At first the metal was placed between two steel dies, and struck by a hammer; first coining mill invented, 1553, by Antoine Brucher. **Collar.**–Very ancient ornament; Gauls wore torques (collars) 361 B.C. **Colleges.**–University education preceded the erection of colleges, which were munificent foundations to relieve the students from the expense of living in lodging-houses or at inns; academic or collegiate degrees said to have been first conferred at the university of Paris, 1140. **Colon.**–(:) The colon and period were adopted by Thrasymachus about 373 B.C.; the colon and semicolon first used in English literature in the 16th century.

COLONIES.–Those of the Phœnicians and Greeks are the first recorded. **Color.**–Huygens, about 1678, showed that, according to the undulatory theory, color is to light what pitch is to sound. **Combs.**–Found in Pompeii several centuries B.C. **Comedy.**–Thalia is the muse of lyric poetry and comedy. Susarion and Dolon performed the first comedy at Athens, 562 B.C. **Comets.**–The first discovered and accurately described was by Nicephorus, 1337; two large comets were seen at the birth of Mithridates, 135 B.C., visible for seventy-two days.

COMMERCE.–Flourished among the ancient Egyptians, Phœnicians, and Arabians; Tyre a center of commerce, 588 B.C. **Common Schools.**–Ancient Sparta and Athens were the first to establish and maintain public free schools; established in Massachusetts and Connecticut from 1642 to 1643. **Communion.**–Ordinance of the Lord's supper, established by the Savior, 33 A.D.; introduced in the west, under pope Urban II., 1096. **Compass.** Mariner's.–Known to Chinese, 1115 B.C.; introduced into Europe by Marco Polo, 1260. **Competitive** Examinations.–Introduced first, 1870.

COMPOSING MACHINES.–For setting type. First invented by James Young, and used on the London "Family Herald," Dec. 17, 1842. **Concertina.**–Musical instrument, invented by Wheatstone, about 1825. **Concerts.**–First held in London, 1672. **Conchology.**–Science of shells. Mentioned by Aristotle and Pliny; reduced to a system by Major, 1675. **Concordance** of Bible.–First one published by St. Caro, 1247; Cruden's first published in London, 1737. **Conduits.**–First built in London, 1285. **Conferences,** Ecclesiastical.–One held at instance of king James I., Jan. 14-16, 1604. **Congelation,** Artificial.–Produced by use of chemicals by Walker, 1783.

CHRONOLOGY.

CEN.	YR.	
1900	89	200th Anniversary inaugurated in Westminster Abbey.
1800	63	A Insurrection in New Zealand.
1700	93	Reign of Terror in France begins.
1600	88	91 Revolution in Great Britain.
1500	61	10 Revolt of Moors in Spain.
1400	94	1516 Franco-Italian War.
1300	83	Civil war in Portugal.
1200	38	Moorish kingdom of Grenada founded.
1100	59	War between England and France.
1000	35	Kingdom of Castile founded.
900	12	Total eclipse of the sun.
800	43	Treaty of Verdun in Germany.
700	23	Sardinia conquered by Saracens.
600	30	Norway colonized by Swedish exiles.
500	70	Nov. 10, Birth of Mohammed.
400	88	Frankish empire founded by Clovis.
300	50	Roman Empire under one emperor.
200	62	Goths burn temple of Diana at Ephesus.
100	65	Cassius massacres 300,000 Seleucians.
0	44	B.C. CÆSAR KILLED IN THE SENATE.
100	06	Jan. 3, Birth of Cicero at Arpinum.
200	18	Hannibal passes the Pyrenees.
300	32	Alexander founds Alexandria.
400	34	War between Rome and Tuscans.
500	18	Babylon destroyed by Darius.
600	05	First captivity of the Jews.
700	40	Damascus taken by Assyrians.
800	69	Phidon invents scales and measures.
900	26	Birth of Lycurgus, Spartan law-giver.
1000	43	Ephesus founded by the Ionians.
1100	36	Samson kills 3000 Philistines.
1200	63	The Argonautic expedition.
1300	43	Israelites conquered by Eglon.
1400	94	Cadmus introduces letters into Greece.
1500	51	Moses visits the Israelites.
1600	88	Jacob predicts advent of the Messiah.
1700	15	Joseph interprets the king's dreams.
1800	22	Death of Abraham, aged 175.
1900	20	The Lord sends plagues upon Pharaoh.
2000	88	Sicyon, Greece, founded by Egialeus.
2100	60	Only one language in the world.
2200	18	Nineveh named in honor of Ashur.
2300	20	Birth of Nimrod, the mighty hunter.
2400	68	Worshippers intermarry with ungodly.
2500	66	God commands Noah to build the ark.
2600		
2700	00	Dynasty of Menetha, Egypt, begins.
2800		
2900	62	Funeral of Seth, aged 912.
3000		
3100	30	Methuselah begets Lamech.
3200		
3300	11	3017 Enoch walks with God.
3400		
3500	44	Jared begotten by Mahalaleel.
3600		
3700	69	Harps first used about this time.
3800	76	Cain builds a city named Enoch.
3900		
4000	4	Woman yields to the first temptation.

CONGRESS.–First European congress was that of Münster, 1643-8; first American congress assembled Sept. 5, 1774. **Conic Sections.**–Probably known to Greeks, about 400 B.C.; earliest treatise written by Aristæus, about 330 B.C. **Conquest,** Era of.–In England, commenced Oct. 14, 1066. **Constantinople,** Era of.–Commenced Sept. 1, 5508 B.C. **Constellations.**–First mentioned, about 1520 B.C. **Convents.**–Said to have been first founded, 270. **Cookery.**–Connected only with civilized life. Animals first granted as food to Noah, 2348 B.C.; Abraham cooked a calf, 1898 B.C. **Cooperage.**–An art practiced by Romans 100 B.C.

COPPER.–One of the six primitive metals, said to have been first discovered in Cyprus. Mentioned by Ezra, 457 B.C. **Copper Cent.**–First coined in New Haven, 1687. **Copperas.**–Mineral, said to have been first produced in England by de Vos, 1587. **Copying Machines.**–For letters, etc., invented by James Watt, 1778; Wedgwood's "manifold writer," patented, 1806. **Copyright.**–First mentioned in England, 1556; first law passed by U.S. Congress, 1781. **Cork Tree.**–Known to ancient Egyptians; introduced into England, 1690. **Corn.**–Said to have been cultivated by Ceres, 2409 B.C.; Indian corn found in America by Columbus, 1492.

CORRELLATION of Forces, Theory of.–Announced by W.R. Grove, 1842. **Cotton.**–Cotton cloth is mentioned by Herodotus, 450 B.C.; used in Arabia, 627. **Cotton Gin.**–Invented by Eli Whitney, 1793. **Couriers.**–Xenophon attributes the first to Cyrus, about 550 B.C.; common among the Persians, 510 B.C. **Courts of Justice.**–Instituted at Athens, 1507 B.C.; by Moses, 1491 B.C. **Cranes.**–The engines of Archimedes were the first, invented about 220 B.C. **Craneology.**–See *Phrenology.* **Crank.**–Pickard's patent, 1780 **Crape.**–Said to have been made by Ste. Badour, Queen of France, 680. **Crayons.**–Colored pencils, known in France about 1422.

CREASOTE.–Discovered by Reichenbach, about 1833. **Creatine.**–Chemical principle of flesh, discovered by Chevreul, 1835. **Creation** of the World.–Date given by the English Bible, and by Usher, Blair, and several others, is 4004 B.C. **Cremation.**–See *Burning the Dead.* **Creosote.**–Bethell's patent, 1838. **Cricket.**–Ancient English game of the 14th century. **Crinoline.**–Hoop-skirt for a lady's dress, invented about 1560. **Croquet.**–A game common since about 1850. **Cross.**–Signing with the cross was first practiced about 110. Crosses introduced into churches, about 431; set up on steeples, about 568.

DICTIONARY OF DATES.

CROWN.—Worn by Saul, 1056 B.C.; Tarquin the Elder was the first Roman to wear a crown, 616 B.C. **Crucifixion.**—Mode of execution among Assyrians, Egyptians, Persians, Carthaginians, Greeks, and Romans. Ariarathes was crucified, 322 B.C., and Jesus Christ, April 3, 33 A.D. **Cryolite.**—Greenland mineral, employed in procuring aluminium, 1855. **Cryptograph.**—For writing in cipher, invented by Wheatstone, 1868. **Cubit.**—Measure used by Noah in measuring the ark, 2448 B.C. **Cucumbers.**—Mentioned by Virgil, 40 B.C.; introduced into England, 1538.

CULVERIN.—A kind of cannon, introduced into England, 1534. **Cuneiform Inscriptions.**—Wedge-shaped characters, in use for writing, 2000 B.C. **Cupping.**—Mode of blood-letting, described by Hippocrates, 413 B.C. **Curfew Bell.**—Revived or introduced into England by William I., 1068. **Cymbal.**—Musical instrument, said by Xenophon to have been invented by Cybele, and used in her feasts, 1580 B.C. **Cynics.**—Sect of philosophers, founded by Antisthenes, about 396 B.C. **Daguerreotypes.**—Invented by Daguerre, 1838. **Daltonism.**—Colour-blindness. About 60 persons out of 1000 are color-blind. Spectacles to remedy the defect, invented by J.C. Maxwell, 1859.

DAMASK Linens and Silks.—First made at Damascus; introduced into England, 1571. **Dancing.**—Eusebius ascribes its invention to the Curetes, 1534 B.C. **Daric.**—Persian gold coin, issued by Darius about 538 B.C. **Darwinism.**—Theory relating to the development of species, published by C. Darwin, 1859. **Davy Lamp.**—Mining safety lamp, invented by Davy, 1815. **Davyum.**—Metal discovered by Sergius Kern, 1877. **Deacons.**—Began with the Apostles, about 53. **Deaf and Dumb.**—Pedro de Ponce made the first attempt to systematically instruct the deaf and dumb, about 1570. **Death.**—Ordained as the punishment for murder, 2348 B.C.

DEDICATION.—Of the Jewish tabernacle, 1490 B.C.; of the temple, 1004 B.C.; of the second temple, 515 B.C. **Deeds.**—In land conveyances, used in England, 933. **Degrees.**—Eratosthenes attempted to determine the length of a geographical degree about 250 B.C. For collegiate degrees see *Colleges*. **Delft.**—Earthenware, invented in Holland about 1310. **Deluge.**—Said to have occurred 2348 B.C. **Denarius.**—A silver coin among the Romans, first coined about 269 B.C. **Derricks.**—Structures for lifting heavy loads, invented by A.D. Bishop, about 1855. **Dew.**—Theory respecting its formation was published in a book by Dr. Wells, 1814.

CHRONOLOGY.

CEN.	YR.	
1900	20	300 Anniversary landing of Pilgrims.
1800	69	July 10, Mexican Empire proclaimed.
1700	40-48	War of Austrian Succession.
1600	42-60	Civil War in Great Britain.
1500	41	Mississippi River discovered by De Soto.
1400	53	Siege of Constantinople.
1300	48-51	Black Death prevails in Europe.
1200	99	**Ottoman Empire founded.**
1100	87	Oct. 2, Jerusalem taken by Saladin.
1000	78	Tower of London founded by William I.
900	35	Algiers founded by the Saracens.
800	94	Hungary settled by Ungri and Magyars.
700	32	Oct. 10, Battle of Tours, France.
600	93-28	**Persian War with East'n Empire.**
500	43	Naples surrenders to Ostrogoths.
400	62	Sardinia conquered by Vandals.
300	95	Division of the Roman Empire.
200	87	The Franks settle in Gaul.
100	06	Dacia annexed to Roman Empire.
O	36	**A.D. CONVERSION OF ST. PAUL.**
100	93	Alliance of Rome and Macedon.
200	19	Saguntum, Spain, taken by Hannibal.
300	12	Kingdom of the Seleucidæ founded.
400	64-55	Third Messenian War.
500	72	Tyre destroyed by Nebuchadnezzar.
600	25	**Pentateuch found by Hilkiah.**
700	30	Palestine invaded by Assyrians.
800	68	Cyprians control the Mediterranean.
900	07	Homer flourishes about this time.
1000	44	Migration of the Ionian Colonies.
1100	57	Eli, high priest, Nth judge of Israel.
1200	33	**Carthage founded by the Tyrians.**
1300	28	Isthmian games first introduced.
1400	93	Cadmus builds citadel of Thebes.
1500	51	Moses flies into Midian.
1600	15	Ethiopians migrate from the Indus.
1700	08-01	The seven years of famine.
1800	91	Isaac, the child of promise, is born.
1900	98	Bread first made from wheat by Chinese.
2000	89	Kingdom of Sicyon established.
2100	88	Kingdom of Egypt under Misraïm.
2200	34	Celestial observations begun at Babylon.
2300	11	Salah, son of Arphaxad, is born.
2400	09	**Corn first cultivated by Ceres.**
2500		
2600	00	Wickedness increases in the world.
2700		
2800	64	Enos reaches his 905th year.
2900		
3000	74	Funeral of the father of the race.
3100		
3200	00	**Adam's creation continues.**
3300		
3400	00	The metals brass and iron in use.
3500		
3600	00	Polygamy practiced by Lamech.
3700		
3800	76	Cain settles on the east of Eden.
3900		
4000		**4. Planting of the Garden of Eden.**

DIADEM.—Band or fillet worn instead of a crown. Aurelian was the first Roman emperor to wear a diadem, 272. **Dials.**—The sun-dial of Ahaz is mentioned 713 B.C. Anaximander invented one 550 B.C. **Dialysis.**—Method of chemical analysis, discovered by Thos. Graham, 1861. **Dia-Magnetism.**—Magnetic properties of various bodies be having differently from iron. Law discovered by Faraday, 1845. **Diamonds.**—Known and used, 1491 B.C.; first cut and polished by ancient Chinese; and practiced in Europe, 1489. **Diamond Drills.**—Invented by Leschot, 1864.

DICE.—Invention ascribed to Palamedes, 1244 B.C. **Dichrooscope.**—Optical apparatus, invented by Dové of Berlin, 1860. **Dictionary.**—A Chinese dictionary containing about 40000 characters was published 1100 B.C.; oldest Latin dictionary published about 50 B.C.; Samuel Johnson's great English dictionary, 1755. **Didymium.**—A rare metal, discovered by Mosander, 1841. **Digest.**—Collection of laws, first prepared by Alfenus Varus, 66 B.C. **Digits.**—The figures 1, 2, 3, etc., known to the Arabians about 900. **Diocletian Era.**—Commenced Aug. 29, 284.

DIOPTRIC SYSTEM.—Arrangement of lenses for condensing light in lighthouses, devised by Fresnel, 1819. **Diphtheria.**—So named by Bretonneau of Tours, 1820. **Dipping Needle.**—Invented by Norman, 1580. **Dispensaries.**—To supply the poor with medical advice and medicine, first established in London, 1770. **Dissolving Views.**—Invented by H.L. Childe, who died in 1874, aged 92. **Distaff.** Spinning wheel, was used 1015 B.C. **Distillation.**—First introduced into Europe by the Moors about 1150. **Diving Bell.**—First mentioned by Aristotle, about 325 B.C.; used in Europe about 1509.

DIVINING ROD.—Believed to have the property of indicating the position of minerals and springs of water, prominently brought to notice by Dr. H. Mayo, 1851. **Divorce.**—Permitted by the law of Moses, 1451 B.C.; forbidden by Christ, except for unchastity. **Dogs.**—Mentioned by Moses, 1491 B.C. **Dollar.**—Spanish dollars were first coined, 1797; American silver dollars were first coined at Philadelphia, 1794. **Dominoes.**—Game invented in France, about 1790. **Doom's Day Book.**—Containing surveys of English lands, 1086. **Dower.**—Gifts of a husband to a wife, mentioned in time of Jacob, 1732 B.C. **Drafts or Checks.**—Came into general use in England and the United States, about 1855.

DICTIONARY OF DATES.

DRAINAGE.—Of lands, practiced in England prior to 1621; drain pipes, or tiles, were first introduced, 1843.

Drama.—Both tragedy and comedy began with the Greeks, about 562 B.C.

Draughts, or Checkers.—Played in Egypt prior to 2100 B.C.; introduced into Europe about 1550.

Dreams.—Mentioned in the Bible, 1715 B.C.

Dredging.—Practiced extensively since 1868, in ascertaining the depth of the ocean.

Drilling Machines.—In agriculture, for sowing grain, known since about 1700.

Drinking Fountains.—Erected in various cities since about 1850.

DROWNING, as a Punishment.—Was practiced by the Britons prior to 450 B.C.

Drum.—Used by the ancient Romans and Egyptians; introduced into Spain by the Moors, 1713.

Drummond, or Lime Light.—Invented by Thos. Drummond in 1826. Produced by the combustion of oxygen and hydrogen, or carburetted hydrogen on a lime surface.

Dualin.—A powerful explosive, invented by Carl Ditmar, a Prussian, about 1870.

Ducking Stool, or Cucking Stool.—First used about 1745.

Duelling.—Originated among the ancient Celts; first formal duel in England occurred in 1096.

DUPLEX TELEGRAPHY.—Transmission of two messages at the same time in opposite directions over a single wire, first accomplished by Dr. Gintl, an Austrian, 1853.

Dyeing.—Said to have originated with the Tyrians, about 1500 B.C.

Dynamite.—An explosive invented by A. Nobel, about 1868.

Ear-rings.—Worn by Jacob's family, 1732 B.C.

Earth-closet System.—Invented by Moule, 1867.

Earthenware.—*See Pottery.*

Earthquakes.—Anaxagoras, 435 B.C., supposed they were produced by subterranean clouds bursting into lightning, which shook the vaults that confined them; first one recorded, 1606 B.C.

Easter.—Instituted about 68 A.D.

EBONITE.—Vulcanized india rubber, patented by C. Goodyear, 1839.

Eclipses.—The first one recorded happened March 19, 721 B.C.; it was lunar, and was accurately observed at Babylon.

Egyptian Era.—Commenced Feb. 28, 747 B.C. Same as era of Nebonassar.

Eidography.—Same as Pantagraph.

Electric Balloon.—Experimental trips made, 1883.

Electric Candle.—Invented by Jablochkoff, 1876.

Electric Car.—Electric railway opened near Berlin, 1881.

Electric Light.—First practical application of electricity to the production of good artificial light was made by Faraday, 1821, though Davy produced electric light with carbon points, 1807; great improvements made since 1876.

CHRONOLOGY.

CEN.	YR.	
1900	46	400th Anniversary birth of Martin Luther.
1800	63	Polish Insurrection at Warsaw.
1700	35-39	Fourth Russo-Turkish War.
1600	81-99	Second Russo-Turkish War.
1500	33	Papal authority abolished in England.
1400	60	Gutenberg completes his Bible.
1300	01	Switzerland Independence declar'd.
1200	21-29	Sixth Crusade by Frederick II.
1100	12	Conquest of Ireland.
1000	00	America visited by Icelanders.
900	93	A great eruption of Mt. Vesuvius.
800	88	University of Oxford founded.
700	68	Charlemagne sole monarch of France.
600	91	First Doge chosen in Venice.
500	38-99	Terrible plague over Eur., Asia & Afr.
400	55	Rome plundered by Genseric.
300	13	Bible translated into Gothic tongue.
200	26	Persia restored by Artaxerxes.
100	18	Fourth persecution of Christians.
O	**70**	**A.D. TITUS DESTROYS JERUSALEM.**
100	11	The Jugurthine War begins.
200	36	Tartars expelled from China.
300	23	Demosthenes recalled from exile.
400	13	Aug. 21, Eclipse of the moon.
500	01	Second census of Rome—pop.=130000.
600	00	Sapho the lyric poetess.
700	35	First Greek colony in Sicily.
800	26	Phœnicians control Mediterranean.
900	00	Kingdom of Assyria ends.
1000	23	Absalom killed by Joab.
1100	32	Alba-Longa founded by Ascanius.
1200	13	Helen dishonored by Theseus.
1300	25	Ehud second judge of Israelites.
1400	13	Israelites sunken in idolatry.
1500	03	Deluge of Deucalion in Thessaly.
1600	19	Death of Levi, aged 137 years.
1700	01	Joseph made known to his brethren.
1800	36	Esau and Jacob, twin sons of Isaac.
1900	13	War against the king of Sodom.
2000	00	Cuneiform inscriptions in use.
2100	88	Mitzraim founds Memphis.
2200	47	The confusion of tongues.
2300	51	Chinese noted as astronomers.
2400	48	The cubit used by Noah.
2500		
2600	00	Genealogy of patriarchs continues.
2700		
2800	17	Methuselah reaches his 900th year.
2900		
3000	11	Translation of Enoch.
3100		
3200	04	Adam attains his 800th year.
3300		
3400	38	Seth is 400 years of age.
3500		
3600	19	Birth of Cainan, son of Enos.
3700		
3800	15	Instruction given in metallurgy.
3900		
4000	4	Naming of the creatures.

ELECTRIC LOOM.—Invented by M. Bonelli, of Turin, 1854.

Electric Clock.—Invented by Wheatstone, 1840.

Electric Machines.—Many different ones have been invented by Guericke, Newton, Boyle, and others, since 1647.

Electric Pen.—Invented by Edison in 1877.

Electric Safety Lamp.—Invented by Dumas and Benoit, 1862.

Electric Telegraph.—Transmission of electricity by an insulated wire shown by Watson and others, 1747, since when numerous telegraphic arrangements have been made; first telegraphic line in the United States, 1844.

ELECTROCUTION.—Infliction of death as a punishment, legalized and practiced in the State of New York, 1890.

Electroline.—Discovered by Marx, 1889.

Electro-Magnetism.—Discovered by Oersted, 1820.

Electrometer and Electroscope.—The former invented by Lane, 1767, and the latter by Bohnenberger, 1820.

Electro-Tint.—An engraving process, invented by Palmer, 1841.

Electrotype.—First successful experiments in this art were made by Spenser of England, and Jacobi of Russia, 1837.

Embalming.—Practiced by the Egyptians in the most ancient times; Israel was embalmed, 1689 B.C.

EMISSION OF LIGHT, Theory of.—Supposes that individual particles pass from the luminous body to the eye, advocated by Newton, about 1672.

Empalement.—Mode of executing criminals, first practiced by the ancient Romans.

Emperor.—Augustus Cæsar was the first Roman emperor, 27 B.C.

Enameling.—Practiced by the ancient Egyptians, Chinese, and some other nations; practiced in England in the time of the Saxons.

Encaustic.—A kind of painting, or enameling by fire, known to Praxiteles, about 360 B.C.

ENCYCLOPÆDIA.—A name first given to a work by Abulpharagius in the 13th century.

Endosmosis.—Passage of gases or vapors through animal membranes, discovered by Dutrochet, about 1826.

Engine.—First Cornish, 1812.

Engineering, Civil.—Became important, about 1750.

Engraving.—On signets, is mentioned 1491 B.C.; on metal, invented 1423; on copper, 1511; on wood, about 1400; on glass, 1799; on steel, about 1815.

Entomology.—Science of insects. Ray's was the first work on this subject, 1705.

Envelopes.—For letters are mentioned in 1726 by Swift; came into general use, about 1840.

Epic Poems.—The "Iliad" and "Odyssey," by Homer, about 900 B.C., are the first.

EPICUREAN PHILOSOPHY.–Teaches that the greatest good consists in peace of mind springing from virtue, first taught by Epicurus, near Athens, about 300 B.C. **Epigrams.**–Derive their origin from inscriptions placed on ancient tombs. **Epiphany.**–Instituted about 813. **Epistles, or Letters.**–The earliest known letter is that sent to Joab by David by the hands of Uriah, about 1035 B.C. **Epitaphs.**–Were inscribed on tombs by the ancient Egyptians, Jews, Greeks, and Romans.

ERAS.–See the following in their alphabetic order

Abraham, Era of	Jewish Era
Alexandrian Era	Julian Period
Antioch, Era of	Julian Year
Armenian Era	Maccabees, Era of
Ascension, Era of	Metonic Cycle
Augustan Era	Mohammedan Era
Cæsars, Era of	Mundane Era
Christian Era	Nabonassar, Era of
Conquest, Era of	Olympiads, Era of
Constantinople, Era of	Persian Era
Diocletian, Era of	Roman Era
Grecian Mundane Era	Seleucidæ, Era of
Grecian, or Syro-Maced'n	Sidonian Era
Independence, Decla'n	Spanish Era
Jerusalem, Era of	Tyre, Era of

Erbium.–Metal discovered by Mosander, 1843. **Ericsson's Caloric Engine.**–Of which heat is the motive power, invented, 1853.

ETCHING.–On copper with aqua fortis was introduced in 1512. **Ether.**–Known to earliest chemists; nitric ether was discovered by Kunkel, 1681; first used in surgical operations, 1844. **Ethnology.**–Relations of the different divisions of mankind to each other. The study of this subject in a scientific manner began about 1825. **Ethyl.**–A colorless gas, first obtained in a free state by Frankland, 1849. **Eudiometer.**–To ascertain the purity of atmospheric air, invented by Priestly, 1772. **Eunuchs.**–First mentioned by the Egyptians and Assyrians, about 2007 B.C. **Evening Schools.**–For adults, first introduced about 1811, in England. **Evolution Theory.**–Has been much discussed since 1877.

EXAMINATIONS.–In civil service required since about 1855; in teaching, since about 1828. **Exchange.**–Formerly called *Bourse*, existed at Rome, 493 B.C. **Excise.**–System of duties, established in England, 1643. **Exhibitions.**–The first industrial exhibition was held in France, at the suggestion of Marquis d'Avèze, 1798; first international exhibition, or world's fair, was held at London, 1851, at the suggestion of Prince Albert. **Exodus.**–Departure of the Israelites from Egypt, 1491 B.C. **Explosives.**–See *Dynamite, Dualine, Glyoriline, Gun Cotton, Gunpowder, Lithofracteur,* and *Nitro-Glycerine.* **Express.**–First American was operated between New York and Boston, 1821.

CHRONOLOGY.

CEN.	YR.	
1900	65	100th Anniversary of Lee's surrender.
1800	67	Dominion of Canada formed.
1700	52	New Style introduced in England.
1600	33	Galileo sentenced to abjure his opinions.
1500	30	Copernicus revives theory of Solar System.
1400	58	Greece subjected to the Turks.
1300	71	Papal See removed to Rome.
1200	48	Inquisition established in Spain.
1100	67	Lombard League against the empire.
1000	66	Dec. 13, Coronation of William I. of Eng.
900	60	Sung dynasty in China founded.
800	62	Grand duchy founded in Russia.
700	95	Danes and Normans invade Ireland.
600	34	Damascus taken by the Saracens.
500	30	Suivi–kingdom established in Spain.
400	55	Anglo-Saxons drive Britons into Wales.
300	64	Roman Empire under two emperors.
200	50	Seventh persecution of Christians.
100	68	A plague over the known world.
0	40	A. D. CHRISTIANS FIRST SO CALLED.
100	46	Carthage becomes a Roman province.
200	20	A census of Rome–pop. = 210,213.
300	25	Demosthenes banished from Athens.
400	11	Democracy re-established at Athens.
500	93	Ezekiel first appears as a prophet.
600	21	Jeremiah called as a prophet.
700	24	The first Messenian War ends.
800	14	The kingdom of Macedon begins.
900	96	Solomon's fleet prepared in Red Sea.
1000	48	Syria becomes a Jewish province.
1100	79	The Lydians control Mediterranean.
1200	52	The city of Tyre is founded.
1300	01	Olympic games instituted by Pelops.
1400	53	Moses dies in Moab, aged 110.
1500	71	Pharaoh's edict for drowning Israelite children.
1600	18	Rameses III. reigns in Egypt.
1700	08	Jacob and family go down into Egypt.
1800	56	Marriage of Isaac and Rebekah.
1900	98	Wine made from rice by Chinese.
2000	80	The Hykses conquer Lower Egypt.
2100	26	Terah, son of Nahor, is born.
2200	47	Descendants of Noah settle in Shinar.
2300	48	Death ordained as punishment for murder.
2400	30	Building of Pyramids commenced.
2500	20	Man's years are growing fewer in number.
2600	00	Government by kings exists in Egypt.
2700		
2800	48	Noah, the comforter, is 100 years old.
2900		
3000	00	Embalming known for several centuries.
3100		
3200	44	Jared reaches his 300th year.
3300		
3400	00	Patriarchal, the only form of government.
3500		
3600	09	Cainan, aged 70, begets Mahalaleel.
3700		
3800	75	Cain complains of excessive punishment.
3900		
4000	4.	The shameful fall of man.

FABLES.–Jotham's noted fable of the trees, about 1209 B.C., is the oldest extant. **Fairs and Wakes.**–Of Anglo-Saxon origin; instituted in Italy, about 500, and in England, about 886. **Falconry,** or Hawking.–In England, is traced to the reign of king Ethelbert, the Saxon monarch, 858. **Falling Stars.**–See *Meteors.* **False Hair.**–First introduced into England from France, 1572. **Famines.**–The first recorded is that of seven years in Egypt, beginning 1708 B.C. **Fans.**–Were first devised by the harlots in Italy, prior to 166 B.C.

FARCE.–Short comic drama, first written about 1667. **Farthing.**–An English coin, first made by king John, about 1200. **Fasts.**–Observed by most nations from the remotest antiquity; Moses fasted 40 days and nights, 1491 B.C. **Feasts and Festivals.**–Those of the Passover, Pentecost, Trumpets, and Tabernacles, were instituted 1490 B.C. **Fencing.**–Was introduced into England from France prior to 1285. **Female Suffrage.**–First began to be agitated about 1867. **Fermentation.**–Studied analytically in 1810 by Gay-Lussac, who termed it one of the most mysterious processes in nature. **Fictions.**–See *Romances.* Fictions in law were invented by the lawyers, about 1005.

FIGURES.–See *Digits.* **Files.**–Were in use about 1093 B.C.; manufactured from machinery since about 1855. **Filters.**–First recorded patent for a filter is dated 1675. **Fire-Annihilator.**–First chemical engine made about 1849. **Fire-Arms.**–First manufactured in Italy, 1364. See *Artillery, Cannon, Chassepot, Howitzer, Lancaster, Needle Gun,* and *Pistols.* **Fire-Damp Indicator.**–Invented by G. F. Ansell, 1865. **Fire-Detector** and Alarm.–Invented by Prof. Grechi in 1873. **Fire-Engines.**–Said to have been first invented by Ctesibius, 250 B.C. **Fire-Escapes.**–First patents were granted to David Marie, 1766, and Joachim Smith, 1773.

FIREMAN'S RESPIRATOR.–One invented by Dr. Tyndall, 1870. **Fire-Ships.**–Used by the Rhodians, 190 B.C. **Fire-Works.**–Said to have been made by the Chinese in remote ages; manufactured in Italy, about 1360. **Flag.**–Was first made in its present form in Spain, about 550; first American flag was unfurled over the camp at Cambridge, Jan. 1, 1776. **Flageolet.**–Patented by Wm. Bainbridge, 1803. **Flannel.**–See *Woolen.* **Flax.**–Manufactured in Egypt in remote ages, and carried thence to Tyre about 588 B.C. **Flies.**–Plague of flies in Egypt, 1491 B.C. **Floating Docks.**–First introduced, 1716. **Flogging.**–Practiced as a punishment, limited to 40 stripes, 1451 B.C. **Flood, Noah's.**–2348 B.C., lasted for forty days.

DICTIONARY OF DATES.

FLORIN.–A gold coin first made at Florence, about 1250. **Fluorescence.**–The absorption of the chemical solar rays by certain substances, and emitting them after dark, discovered by Prof. Stokes, 1852. **Fluorine.**–Gaseous element, first obtained by Priestley, about 1777. **Flute.**–Known before 580 B.C. **Fluxions.**–Branch of higher mathematics, invented by Newton, 1665. **Flying Machines.**–Archytas is said to have made a flying dove, about 400 B.C.; in 1843 Mr. Henson invented a flying machine, but it did not serve a practical purpose.

FOCIMETER.–Invented by Claudet, 1849. **Fog Signals.**–Much attention was given to them in 1862. **Forgery** of Deeds.–Was severely punished, 1562. **Forks.**–Used in Europe first, about 1250; introduced into England, 1608. **Formic Acid.**–Acid of ants, produced artificially by Pelouze, 1831. **Fortifications.**–First used in the protection of cities by the ancient Phœnicians; the present mode introduced about 1500. **Fortune Telling.**–Is traced to the early astrologers, prior to 1000 B.C. **Foundling Hospitals.**–Established at Milan, Italy, 787; in London, 1739; in New York, 1868. **Fountains.**–The fountain of Hero of Alexandria is the first recorded, and was invented about 150 B.C.

FOURIERISM.–A social system devised by Charles Fourier, who died in 1837. **Franc.**–A French coin, first coined, 1795. **Freemasonry.**–Traced by some to the building of Solomon's temple, about 1000 B.C.; introduced at Boston, 1733. **Free Trade.**–Advocated by Adam Smith in his "Wealth of Nations," 1776; adopted in England, 1846. **French Horn.**–Invented about 1800. **Fresco Painting.**–An art known to ancient Egyptians; first practiced in Italy at Pisa, 1390. **Frozen Carcasses.**–By Harrison's method, first sent to England from Australia, 1873. **Fuchsia.**–An American plant named after the German botanist Leonard Fuchs, about 1542.

FUMIGATION.–Acron, a physician of Agrigentum, is said to have first caused aromatics to be thrown into great fires to purify the air, and stop a plague at Athens, about 473 B.C. **Funerals.**–David lamented over Saul and Jonathan, 1056 B.C.; Solon is said to have been the first to pronounce a funeral oration in Greece, 580 B.C. **Furs.**–Worn by Henry I. of England, about 1125. **Galleys.**–With three rows of oars, *triremes*, were invented by the Corinthians, 786 B.C. **Gallium.**–Very rare metal, discovered by Boisbaudran, by means of the spectroscope, about 1875, and reported to the French academy of sciences. **Galvanic Motor.**–Invented by Sturgeon, 1833.

CHRONOLOGY.

CEN.	YR.	
1900	06	200th Anniversary of birth of Franklin.
1800	46-48	War between U.S. and Mexico.
1700	81-92	Sixth Russo-Turkish War.
1600	66	Sept. 2-6, Great fire in London.
1500	80	Sept. 2, Portugal annexed to Spain.
1400	81	2000 persons burnt in Spain for heresy.
1300	69	July 6, Birth of John Huss, reformer.
1200	**93-1303**	**War between France and England.**
1100	61-66	War between England and France.
1000	65	Dec. 28, Westminster Abbey dedicated.
900	69	Cairo, Egypt, founded by the Saracens.
800	88	Paris besieged by the Danes.
700	76	Charlemagne defeats the Saxons.
600	**38**	**Syria conquered by the Saracens.**
500	68	Kingdom of Lombardy founded.
400	82	Edinburgh taken by Anglo-Saxons.
300	51	The heathens first called pagans.
200	76	Wines first made in Britain.
100	15	Mesopotamia becomes Roman province.
O	**63**	**B.C. CATILINE'S CONSPIRACY AT ROME.**
100	28	800000 persons in Egypt die from pestilence.
200	02	Scipio defeats Hannibal at Zama.
300	22	Demosthenes commits suicide.
400	01	Retreat of the 10000 Greeks under Xenophon.
500	09	First treaty between Rome and Carthage.
600	03	May 11, Eclipse of sun, predicted by Thales.
700	**31**	**Habbakuk, called as a prophet.**
800	78	Carthage founded by Dido.
900	96	Solomon sends his fleet to Ophir.
1000	48	Jerusalem taken from Jebusites by David.
1100	15	Mariner's compass known in China.
1200	25	Theban war of the seven heroes.
1300	90	Tribes of Benjamin almost destroyed.
1400	**85**	**The first ship appeared in Greece.**
1500	48	Scamander founds kingdom of Troy.
1600	89	Book of Genesis terminates.
1700	28	Joseph sold to Egyptian merchants.
1800	22	Memnon, the Egyptian, invents letters.
1900	13	Abraham defeats kings of Canaan.
2000	59	The Assyrian kingdom founded.
2100	**55**	**Serug, aged 30, begets Nahor.**
2200	34	Astronomy first studied at Babylon.
2300	49	Noah and his house enter the ark.
2400	48	The earth filled with violence.
2500		
2600	74	Adam deceased for 400 years.
2700		
2800	64	All the years of Enos are 905.
2900		
3000	**30**	**Lamech, father of Noah, aged 100.**
3100	30	Methuselah 187 at Lamech's birth.
3200		
3300	00	Patriarchs the heads of families.
3400		
3500	00	Population continues to increase.
3600		
3700	00	Agriculture pursued as a livelihood.
3800	75	Cain married prior to this time.
3900		
4000	**4.**	**Creation of the sun, moon, and stars.**

GALVANIC BATTERY.–First manufactured by Volta, 1800. **Galvanism.**–Investigations first made, and results announced by Galvani, 1791. **Gamboge.**–Medicine and pigment, first brought from India by the Dutch, about 1600. **Gamut.**–Scale of musical intervals, mentioned by Guido Aretino, Tuscan monk, about 1025. **Gardening.**–The first garden was that of Eden, 4004 B.C., from which time gardening has been carried on. **Garrotte.**–Spanish instrument for strangling criminals, used prior to 472. **Gas.**–First evolved from coal by Clayton, 1739; See *Natural Gas*.

GAS LIGHTS.–First used by Mr. Murdock in Cornwall, Eng., 1792; first introduced into the United States at Boston, 1822. **Gas Meter.**–Invented by Mr. Clegg, 1815. **Gates.**–First mentioned by Abraham, 1892 B.C. **Gatling Gun.**–Revolving battery gun, invented by Richard J. Gatling, 1861. **Gauges**, in railways.–Much discussion relative to the *broad* and the *narrow* gauge, about 1833. **Gauging.**–The measurement of casks, vessels, etc., regulated by English law, 1352. **Gauntlet.**–Iron glove, introduced about 1225. **Gauze.**–A kind of fabric, introduced from Italy, about 1698. **Gems.**–Rubies, sapphires, etc., were worn by the ancients prior to 1520 B.C.

GENERALS.–Montmorency was the first general of the French armies, 1203; U.S. Grant was the first general of the armies of the United States, 1866. (Previously called *Commander-in-Chief*). **Gens D'-Armes.**–The king's horse-guards, and subsequently also his *gardes-du-corps*, known in 1226. **Gentleman.**–A term first given to the well-descended, about 1430. **Geography.**–The first geographical records are in the Pentateuch; the earth was represented as surrounded by the sea, about 1000 B.C. Hipparchus attempted to reduce geography to a mathematical basis, 135 B.C. See *Maps* and *Charts*.

GEOLOGY.–Said to have been studied systematically by the Chinese prior to the Christian era, and also occupied the attention of some of the ancient Roman and Arabic writers. **Geometry.**–Invention ascribed to the Egyptians; Thales introduced it into Greece, about 600 B.C.; conic sections introduced, 390 B.C., by Plato.; Euclid's elements compiled, about 300 B.C. **Germ Theory** of Diseases.–Was held in the middle ages, but contagious organisms were not discovered till 1875-8, by Profs. Lister, Tyndall, and others. **Giants.**–First mentioned about 2468 B.C. See *Giants* under *Weights and Measures*. The battle of Marignano, 1515, is termed the "battle of the *Giants*."

GILDING.–On wood formed part of the decoration of the Jewish tabernacle, 1490 B.C.; practiced at Rome, 145 B.C.; with gold leaf, first introduced by Margaritone, 1273. **Gin.**–Ardent spirit, duty laid upon it, 1735. **Ginger.**–Cultivated in East Indies and China from time immemorial; introduced into the West Indies since the discovery of America. **Gladiators.**–First exhibited at the funerals of the Romans, 263 B.C. **Glass.**–Nothing is known with certainty as to the invention of glass; the oldest Egyptian specimens are traced to about 1500 B.C.; plate-glass first made, 1673; window glass first made in England, 1557.

GLOBE.–The globular form of the earth, and the five zones as now known, were taught by Thales of Miletus, about 640 B.C. **Globes, Artificial.**–Representing the natural and political divisions of the earth's surface, are said to have been invented by Anaximander, about 580 B.C.; *celestial* globes were made by the Arabs, 1225. **Gloves.**–Leather gloves are of ancient celebrity; in the middle ages the giving of a glove was used in land conveyances. **Glucinum.**–The oxide of this metal was discovered by Vanquelin, 1798. **Gluten.**–An ingredient of grain, discovered by Beccaria, about 1775.

GLYCERINE.–Discovered by Scheele, about 1779. **Glyoxyline.**–Explosive, invented by F. A. Abel, 1867. **Godfathers** and Godmothers, or Sponsors.–The Jews are said to have had them at circumcision, which was instituted 1898 B.C. **Gold.**–First mentioned, 4004 B.C.; first coined in Europe, 1320; discovered in California, 1847; in Australia, 1851. **Golden Number.**–Cycle of 19 years, said to have been invented by Meton of Athens, 432 B.C. **Good Templars.**–First supreme lodge organized at Syracuse, N.Y., 1852. **Gorilla.**–Powerful ape, said to have been first described by the navigator Hanno, about 400 B.C.

GOTHIC ARCHITECTURE.–Pointed arch and style, began about 800, and spread over Europe. **Grace at Meat.**–Before partaking of meat, the ancient Greeks offered a choice part of it to their gods. The short prayer before a meal is in conformity to Christ's example. **Grammarians.**–A society of grammarians was formed at Rome, 276 B.C.; a Greek grammar was printed at Milan, 1476; Lily's Latin grammar, 1513; Murray's English grammar, 1795. **Grammar Schools.**–One was established at Glasgow prior to 1500; first in the United States, about 1642-3. **Granaries.**–Found by Joseph in Egypt, 1715 B.C. **Grand Juries.**–Outgrowth of common trials by jury, which are claimed to have been first established by Alfred, 886. **Grapes.**–Introduced into England, 1276.

CHRONOLOGY.

CEN.	YR.	
1900	64	400th Anniversary of birth of Shakespeare.
1800	06	Confederation of the Rhine established.
1700	07	Legislative union of England & Scotland.
1600	54-60	War of the Swedish Succession.
1500	35	Chili discovered by Diego de Almagro.
1400	29	Siege of Orleans raised by Joan of Arc.
1300	31-1453	Hundred Years War–Eng. & Fr'ce.
1200	43-50	Seventh Crusade carried on.
1100	69	Eruption of Mount Etna, Sicily.
1000	99	Jerusalem taken by the Crusaders.
900	62	The "Holy Roman Empire" so called.
800	66	Constantinople besieged by Russians.
700	83	Saxons defeated by Charlemagne.
600	95	Money first coined by the Arabians.
500	49	Rome again captured by Totila.
400	76	Fall of the Western Empire.
300	76	Russia invaded by the Huns.
200	91	Jurisdiction of Diocletian in the East.
100	40	Wall of Antoninus made in Britain.
A.D. O B.C.		**50 A.D. LONDON FOUNDED BY ROMANS.**
100	16	Cleopatra assumes government of Egypt.
200	18	The second Punic war begins.
300	32	Alexander gains possession of Egypt.
400	05	Athenian fleet destroyed by Lysander.
500	72	Tyre taken by Nebuchadnezzar.
600	08	Josiah, king of Judea, slain.
700	87	Amos is called as a prophet.
800	96	Elijah, the prophet, translated.
900	75	The Jewish state as a divided kingdom.
1000	00	Thracians control the Mediterranean.
1100	16	Samuel the Xth and last judge of Israel.
1200	06	Israelites again enslaved by Philistines.
1300	44	The kingdom of Mycenæ founded.
1400	05	Othniel, the first judge of Israel.
1500	56	Cecrops founds a colony in Attica.
1600	93	Death and burial of Jacob, aged 147.
1700	15	The 7 years of plenty begin in Egypt.
1800	56	The kingdom of Argos founded.
1900	13	Damascus founded prior to this time.
2000	01	Eunuchs first employed by Semiramis.
2100	88	Misraim, son of Ham, king of Egypt.
2200	01	Chinese monarchy said to begin.
2300	49	The living creatures enter the ark.
2400	48	God repents at having created man.
2500	82	Death of Jared at the age of 962.
2600		
2700	14	All the years of Mahalaleel are 895.
2800		
2900	62	The days of Seth are numbered.
3000		
3100	30	Lamech, son of Methuselah, is born.
3200	04	600th year of the life of Adam.
3300	82	Enoch, the righteous, is born.
3400		
3500	44	Mahalaleel, aged 65, begets Jared.
3600		
3700	74	Seth becomes a centenarian.
3800	76	Abel's blood crieth from the ground.
3900		
4000	4	Man's first food wholly vegetable.

GRAPHITE.–Mineral carbon called *black lead*, used in making lead pencils, which are first mentioned by Gesner, 1565. **Graphophone.**–Invented by G. and C. Bell, and C. S. Tainter, 1888. **Graphoscope.**–Optical instrument, invented by G. J. Rowsell, 1871. **Graphotype.**–Process for obtaining blocks for surface-printing, invented by Hitchcock, 1860. **Grates.**–In use before the introduction of chimneys, about 1200. **Gravitation.**–Was noticed by the ancient Greeks, and also by Seneca, who spoke of the moon attracting the water, about 38; the universal law of gravitation discovered by Newton, 1670.

GRECIAN MUNDANE ERA.–Commenced Sept. 1, 5508 B.C. **Grecian,** or Syro-Macedonian Era.–Commenced Sept. 1, 312 B.C. **Greek Fire.**–An explosive and combustible composition, known about 670. **Greenbacks.**–United States government notes, first issued, 1862. **Gregorian** Calendar.–Adopted Oct. 15, 1582. **Gretna Green.**–As applied to runaway-marriages, dates from 1760. **Grist Mills.**–First constructed in Ireland, 214. **Groat.**–English silver coin prior to 1351. **Grocers.**–Known in England before 1363. **Grog.**–Mixture of rum and water, known since 1745.

GUANO.–Excrement of sea-birds used for manure, mentioned by Herrera, 1601. **Guards.**–The custom of having guards to protect one's person is said to have been introduced by Saul, 1093 B.C. **Guerrilla** Warfare.–Originated in the Peninsular war, 1808-14. **Guide-Books.**–For travelers, first appeared in England, 1776. **Guilds.**–Mutual benefit associations, originated with the Saxons, about 700. **Guillotine.**–Instrument for executing the death sentence, supposed to have been invented by Dr. J. I. Guillotin, about 1789. **Guineas.**–English gold coins, first made, 1663.

GUITAR.–A similarly constructed instrument was used by the Egyptians about 1500 B.C. **Guns.**–Invented about 1330; used by Moors, 1344; in the battle of Crecy, 1346; first brass guns, 1635. **Gun Cotton.**–A highly explosive substance, invented by Prof. Schönbein of Basel, 1846. **Gunpowder.**–Invention attributed to Schwartz, although there is ground for believing it was known by the Chinese about 30 A.D. **Gunter's Chain.**–Invented by Edmund Gunter, 1606. **Gutta Percha.**–Introduced into England by Montgomery and Almeida, 1843; discoveries by Goodyear, 1836. **Gymnasium.**–Originated with ancient Greeks. **Gypsies.**–First appeared in Europe about 1400. **Gyroscope.**–Rotating wheel, invented by Fessel of Cologne, 1852.

DICTIONARY OF DATES.

HABEAS CORPUS.—Dates its true foundation in the Great Charter (Magna Charta), 1215. **Hackney Coaches.**—First used in London, 1625. **Hair.**—It was the custom of the Jews to wear long hair and to not shave, but the Romans shaved; the Saxons and Danes wore long hair, and did not shave. **Hair Powder.**—Came into use, 1590. **Halls.**—Were principal apartments in mediæval mansions. **Hallelujah and Amen.**—Expressions introduced by Haggai, the prophet, 520 B.C. **Handkerchiefs.**—First used in England, about 1558, as presents from young ladies to gentlemen, to be worn in their hats.

HANDS, IMPOSITION OF.—First performed by Moses in setting apart his successor Joshua, 1452 B.C. **Hanging.**—Said to have been first inflicted upon Wm. Marise, a pirate, 1241. **Harmonium.**—Keyed instrument, similar to the accordion, invented, 1810, by M. Grenié. **Harness.**—For horses, probably invented by Erichthonius of Athens, about 1487 B.C. **Harp.**—Invented by Jubal, 3875 B.C. **Harpsichord.**—Bach and Handel composed for this instrument, about 1700. **Harrison's Time-piece.**—An eight-day clock, striking the hours, and indicating the day of the month, was made by Harrison at London in 1715, and it was still running, 1871.

HARROWS.—Among the earliest implements of agriculture, is represented on many ancient sculptures. **Hats.**—First made by a Swiss at Paris, 1404; high-crowned hats were first worn about 1550; silk hats began to supersede beaver about 1820. **Hawkers and Peddlers.**—Were first licensed, 1698. **Heat.**—Its phenomena began to be carefully studied about 1757. **Hegira, Era of.**—Same as Mohammedan era. **Heliometer.**—For measuring the diameters of the heavenly bodies, invented by Savary, 1743. **Helioscope.**—Solar telescope, invented by Scheiner, 1625. **Heliostat.**—Instrument to make a sunbeam stationary, invented by s'Gravesande, about 1719.

HELMETS.—Protective armor for the head, used by the ancients prior to 810 B.C. **Hemp** and **Flax.**—First cultivated in England about 1532. **Heraldry.**—As an art, is ascribed first to Charlemagne, about 800; and next to Frederick Barbarossa, about 1152. **Herring-Fishery.**—Was largely engaged in by the English and Scotch as early as 800. **Hexameter.**—The most ancient form of Greek verse, used by Homer, about 900 B.C. **Hieroglyphics.**—Picture-writing, said to have been invented by Athotes, 2112 B.C. **High-pressure Engine.**—Invented by Leupold, 1727. **Highways.**—See *Roads*. **Hindoo Era.**—Commenced 3101 B.C. **Hippodrome.**—Greek race-track, know about 1000 B.C.

CHRONOLOGY.

GEN.	YR.	
1900	92	100th Anniversary of birth of U.S. Grant.
1800	93	World's Columbian Exposition at Chicago.
1700	13	Steam engine perfected by Watt.
1600	90	First newspaper in America—at Boston.
1500	98	The Spanish Armada was defeated.
1400	71	**Caxton sets up his printing press.**
1300	81	Greece invaded by the Turks.
1200	65	First Representative Parliament in England.
1100	72	Ireland conquered by Henry II.
1000	76	The Pope excommunicates Henry IV.
900	41	Constantinople besieged by Russians.
800	27	Egbert, first king of all England.
700	42	**Birth of Charlemagne at Saltzburg.**
600	51	End of the Persian kingdom.
500	53	Ostrogoth kingdom in Italy ends.
400	10	The Romans abandoned Britain.
300	13	Constantine converted to Christianity.
200	84	Aug. 29, Era of Diocletian begins.
100	31	Adrian rebuilds Jerusalem.
0	**26**	**A.D. JOHN THE BAPTIST BEGINS HIS MINISTRY.**
100	23	Carthage rebuilt by order of Roman senate.
200	18	Romans totally defeated in battle of Cannæ.
300	60	Plato's second voyage into Sicily.
400	80	Xerxes defeats Greeks at Thermopylæ.
500	09	Expulsion of the Tarquins from Rome.
600	18	Ancus Martius, fourth Roman king.
700	51	**Isaiah called as a prophet.**
800	20	Babylon becomes subject to Assyria.
900	92	The grandeur of Solomon's kingdom.
1000	35	Saul commits suicide on Mt. Gilboa.
1100	00	Most prosperous period of Pharaohs ends.
1200	52	Ash servitude of Israelites under Midianites.
1300	56	Eleusinian mysteries introduced at Athens.
1400	91	**Moses inflicts ten plagues on Pharaoh.**
1500	71	Moses born—hid in an ark in the flags.
1600	35	Israelites multiply, and wax mighty.
1700	15	Joseph finds granaries in Egypt.
1800	56	Grecian kingdom of Argos begun by Inachus.
1900	13	Abraham justified by faith.
2000	42	Uranus arrives in Greece.
2100	12	**Phœnicia plants colonies in Syria.**
2200	47	Eber, aged 34, begets Peleg.
2300	48	Blood forbidden to be used for food.
2400	48	Gopher wood used for making the ark.
2500		
2600	00	God's wrath provoked by wickedness.
2700		
2800	17	**Methuselah reaches his 500th year.**
2900		
3000	00	The human race rapidly multiplying.
3100		
3200	00	The metal gold, known before this time.
3300		
3400	00	Herding, one of the occupations of man.
3500		
3600	79	Enos, aged 90, begets Cainan.
3700		
3800	75	The organ and harp are in use.
3900		
4000	4	**Mankind cast out of Paradise.**

HOLY WATER.—Said to have been used in churches as early as 120 A.D. **Home** Missionary Society.—First founded, 1819. **Homicide.**—Was tried at Athens by the Areopagites, 1507 B.C. **Homœopathy.**—A hypothesis promulgated by Dr. Hahnemann, 1796; introduced into the United States, 1825. **Honey-Moon.**—Arose from drinking diluted honey for 30 days (a moon's age) after marriage, among the Teutons, who are mentioned as early as 320 B.C. **Hoops.**—See *Crinoline*. **Hops.**—Used in England, 1425; were cultivated by ancient Romans. **Horn.**—Musical instrument, the date of whose invention is lost in antiquity, but is thought to be, next to the reed, the earliest wind instrument.

HORSE.—Probably first domesticated by ancient Egyptians; Solomon had 40,000 stalls of horses for his chariots, and 12,000 horsemen, 1014 B.C. **Horse-Racing.**—First practiced by ancient Greeks, prior to 1000 B.C. **Horseshoes.**—Of the kind now known, were not in general use till about 800. **Horticulture.**—See *Gardening*. **Hospitals.**—One built at Jerusalem, 1112, capable of receiving 2000 guests. **Hot Blast.**—Neilson obtained a patent for, 1828. **Hour.**—The day is said to have been first divided into hours, 232 B.C., when Papirius Cursor erected a sun-dial in the temple of Quirinus at Rome.

HOUR GLASSES.—Invented in Alexandria, 240. **Howitzer.**—German piece of ordnance, came into use about 1725. **Humane Society.**—One formed in London, 1774. **Hunting.**—Nimrod was a mighty hunter, 2218 B.C. **Hydraulic Press.**—Invented by Pascal, 1649. **Hydraulic Ram.**—Invented by Montgolfier, about 1800. **Hydrochloric Acid.**—Compound of chlorine and hydrogen, discovered by Dr. Priestly, 1772. **Hydrogen.**—First obtained as a gas by Paracelsus, about 1500; Cavendish proved it to be an elementary body, 1766.

HYDROGRAPHY.—Description of the surface waters of the earth. First sea chart said to have been made by Henry the Navigator, about 1550. **Hydrometer.**—For measuring the specific gravity of liquids, first mentioned about 400. **Hydropathy.**—Cold-water treatment of diseases, practiced by Hippocrates, about 430 B.C. **Hydrostatics.**—Pressure of liquids, probably first studied in the Alexandrian school, about 300 B.C. **Hygrometer.**—For measuring the moisture in the atmosphere, invented by Saussure, about 1790. **Hymns.**—The song of Moses, 1491 B.C., is the most ancient; the Psalms date from about 1066 B.C. to about 444 B.C.

DICTIONARY OF DATES.

HYPNOTISM.—Term given by Mr. Braid, 1843, to a sleep-like condition, produced in a person by steadily fixing his mind on one object. **Hypsometer.**—Thermometrical barometer for measuring altitudes, invented by Wollaston, 1817. **Iambic Verse.**—First written about 700 B.C., by Archilochus. **Ice.**—Discovered to be lighter than water, 1597, by Galileo; first produced artificially, 1783, by Mr. Walker; first ice machine patented by Mr. Harrison, 1857. **Iconoclasts.**—Image-breakers, controversy introduced into the churches, about 300; much loss of life, about 726. **Idols.**—Idolatrous worship introduced by Ninus, king of Assyria, 2059 B.C.

ILLUMINATED BOOKS.—The use of ornaments, drawings, portraits, etc., to enrich books and manuscripts, is of great antiquity. Varro wrote the lives of 700 Romans, using 70 portraits, about 70 B.C. **Ilmenium.**—An alleged metal, discovered by Herrmann, about 1847. **Impeachment.**—First one recorded in England, 1386. **Impressment** of Seamen.—A practice known in ancient times. **Incendiaries.**—Punished with death by the Saxons and Goths. **Incest.**—Cohabitation and marriage between near relatives, forbidden by the Jewish law, 1490 B.C.

INCH.—39.13929 of the length of the seconds pendulum in the latitude of London, vibrating in vacuo at the sea level, at the temperature of 62° Fahr., was defined by act of parliament, 1824. **Income Tax.**—First levied in England, 1512. **Independence,** Era of Declaration.—Commenced July 4, 1776. **India Rubber.**—See *Caoutchouc.* **Indiction,** Era of.—Commenced Jan. 1, 313. **Indigo.**—Supposed to have been known about 50 A.D.; first mentioned in English statutes, 1581. **Indium.**—Metal discovered by Reich and Ritcher, in Saxony, 1863. **Induction** of Electric Currents.—Discovered by Faraday, about 1831. **Indulgences.**—Moderation of ecclesiastical punishment, commenced by Leo III., about 800.

INDUSTRIAL EXHIBITIONS.—See *Exhibitions.* **Infallibility.**—The dogma of papal infallibility was promulgated, 1870. **Infanticide.**—In ancient times, was very prevalent in barbarous countries. **Infirmaries.**—For the sick and indigent, first founded by the emperor Julian, about 362. **Influenza** (la grippe).—Appears to have been known about 1550. **Infusoria** (Animalcules).—Leeuwenhoek's remarkable microscopical discoveries were made at Leyden, 1696. **Ink.**—The ancients had inks of various colors besides black, as red, gold, silver, and purple; invisible, or sympathetic ink, was known before 1653. **Inns.**—Known in ancient Rome, and regulated by law.

CHRONOLOGY.

CEN.	YR.	
1900	75	100th Anniversary of battle of Bunker Hill.
1800	45	Sewing machine completed by Elias Howe.
1700	81	Cornwallis surrenders at Yorktown.
1600	20	Pilgrims by the Mayflower landed.
1500	58	Accession of Queen Elizabeth.
1400	62	**Bible was first printed at Mentz.**
1300	91	Union of Denmark, Norway, and Sweden.
1200	84	First English prince of Wales born.
1100	94	5 War between France and England.
1000	80	Wales invaded by Irish and Scots.
900	64	Rome taken by Otho the Great.
800	67	Danes land in England, and take York.
700	88	**Pleadings in courts first instituted.**
600	68	Constantinople besieged by Saracens.
500	53	Italy ruled as a Byzantine province.
400	93	Ostrogoth kingdom founded in Italy.
300	83	Rebellion of Maximus in Britain.
200	31	Alexandria taken by Diocletian.
100	61	Pestilence in Rome for three years.
B.C.		
0	**55**	**B.C. JULIUS CÆSAR CONQUERS BRITAIN.**
100	49	The third Punic war begins.
200	46	All the records, etc., in China destroyed.
300	21	Samnites compel Romans to pass under the yoke.
400	14	Egypt revolts from the Persians.
500	86	The Temple of Jerusalem burned.
600	10	Canal between Nile and Red Sea begun.
700	50	Romans dishonor the Sabine women.
800	93	**Phrygians control Mediterranean.**
900	92	The queen of Sheba visits Solomon.
1000	12	Solomon begins to build the temple.
1100	17	Samson betrayed to the Philistines.
1200	43	Colony of Arcadians settles in Italy.
1300	05	Third servitude of Israelites under Jabin.
1400	06	Iron is discovered in Mt. Ida in Greece.
1500	71	Moses found by Pharaoh's daughter.
1600	35	**Joseph dies, aged 110, and is embalmed.**
1700	15	Joseph is promoted by Pharaoh.
1800	21	15th dynasty of shepherd kings begins.
1900	21	Abraham driven by famine into Egypt.
2000	59	Idolatrous worship introduced by Ninus.
2100	12	Hieroglyphics invented by Athotes.
2200	18	Nimrod the first monarch.
2300	47	The ark rests on Mount Ararat.
2400	69	**There are men of might and renown.**
2500	82	Death of Jared, aged 962.
2600		
2700	79	Cainan reaches his 900th year.
2800		
2900	48	Lamech begets a son—names him Noah.
3000		
3100	01	**The Hindoo Era commences.**
3200		
3300	17	Enoch begets a son—Methuselah.
3400	00	Cities were built before this time.
3500		
3600	00	Embalming said to have been known.
3700		
3800	75	Cain departs from the presence of God.
3900		
4000	4	**Man given dominion over the earth.**

INOCULATION.—For small pox, introduced from Turkey into England by Lady Montagu, 1718; *vaccine* inoculation discovered by Dr. Jenner, 1796. **Inquests.**—Held in England as early as 925. **Inquisition.**—For punishing heresy and spiritual offenses, established by Theodosius, 382. **Insolvency.**—First insolvency act passed by Parliament, 1649. **Insurance.**—On ships and merchandise, said to have been first contrived by Claudius, 43 A.D.; in general use in Italy, 1194; first fire-insurance office in America was at Boston, 1724; first life insurance at London, 1772; first in America at Philadelphia, 1812; first marine insurance in England, 1598; first in America, 1721.

INTEREST.—For use of money, was first legalized in England, 1623. **Iodine.**—Discovered by De Courtois of Paris, 1812. **Iridium.**—Rare metal, discovered by Tennant, 1804. **Iron.**—Found on Mt. Ida by the Dactyles, 1432 B.C.; wrought by Tubal-Cain, 3815 B.C.; Bessemer's first patent, 1856; first patent for iron smelting, 1620. **Ironclads.**—War-ships whose sides are protected by armor-plates, were first made by the French, 1854. **Irrigation.**—Was practiced in Asia and in Egypt from the most remote ages of the world.

ISTHMIAN GAMES.—Instituted at the isthmus of Corinth by Sisyphus, about 1406 B.C. **Ivory.**—Brought to Solomon from Tarshish, about 992 B.C. **Jacobus.**—Gold coin made in England, 1603–25. **Jacquard Loom.**—For figured fabrics, invented by J. M. Jacquard of Lyons, 1801. **Janissaries.**—Infantry in the Turkish army, first organized by Orcan, about 1330. **Jerusalem,** Era of Destruction.—Commences Sept. 1, 69 A.D. **Jewelry.**—Received by Rebekah as a marriage gift, 1857 B.C. **Jewish Era.**—Commenced Oct. 1, 3761 B.C. **Jockey Clubs.**—Instituted in England, about 1740. **John Doe** and Richard Roe.—Names as standing pledges for the prosecution of suits, first used about 1285.

JOINT STOCK COMPANIES.—Have been organized extensively since 1825. **Jubilees.**—The Jews were commanded, 1491 B.C., to celebrate a jubilee every fifty years. **Judges.**—Ruled over Israelites from 1402 B.C. to 1095 B.C. **Julian Period.**—Invented by Joseph Scaliger, about 1583, to avoid ambiguities in chronological dates, commences Jan. 1, 4713 B.C. **Julian Year,** Era of.—Commenced Jan. 1, 45 B.C. **Juno.**—Planet discovered by M. Harding, of Bremen, Sept. 1, 1804. **Jupiter.**—Said to have been known as a planet to the Chaldeans, 3000 B.C. **Juries,** Trial by.—Most authorities ascribe their institution to Alfred, about 886.

DICTIONARY OF DATES.

JUSTICES of the Peace.–First nominated by William I., 1076. **Jute.**–Extensively cultivated since 1830, for making gunnycloth, etc. **Kaleidoscope.**–Optical instrument, invented by David Brewster, 1816. **Kamptulicon.**–Substance used for flooring, patented by Galloway, 1843. **Kerosene.**–First used for illuminating purposes, 1826. **Keys.**–The invention is ascribed to Theodore of Samos, about 730 B.C. **Kinder-Garten.**–System of education devised by Frœbel, 1837. **King.**–Nimrod is said to have been the first founder of a kingdom, 2245 B.C. **King's Evil.**–Scrofula, supposed, about 1058, to be cured by the king's touch.

KISSING.–Was a mode of salutation, 1760 B.C.; was common among the ancient Greeks. **Kneeling.**–Ordered by Paul, at the name of Jesus, 64 A.D. **Knights.**–The institution of Roman knights is ascribed to Romulus, about 750 B.C.; knighthood was first conferred in England about 800. **Knights** of Pythias.–First organized in Washington, D.C., Feb. 19, 1864. **Knitting.**–Said to have been invented in Spain, about 1550. **Knitting Machine,** or Frame.–Invented by Wm. Lee, of England, 1589. **Knives.**–First made and used in England, about 1560. **Koch's** Tuberculosis Cure.–First announced, 1890.

KORAN.–The Mohammedan Bible, written about 610, by Mohammed. **Krupp's** Cast Steel Factory.–At Essen, Rhenish Prussia, established 1810. **Labyrinths.**–The first said to have been constructed in the island of Crete, by Dædalus, about 1210 B.C. **Lace.**–Very delicate texture, made in France, 1320; produced by machinery, 1768; a lace frame patented by Heathcote, 1809. **Lacteals.**–Absorbent vessels connected with digestion, discovered by Asellius of Cremona, 1622. **Lamps.**–The earthen Lamp of Epictetus, about 50 A.D., is the first mentioned; lamps with horn sides invented by Alfred, about 875; London streets first lighted with oil-lamps, 1681, and with gas-lamps, 1814.

LAMPS, SAFETY.–For use in mines, invented by Davy, 1815. **Language.**–Many are of opinion that, originally, language was revealed from heaven, while others claim it was the invention of man. (*Query.*–If a number of children are kept entirely isolated from all others from birth, so far as hearing any spoken language is concerned, but are allowed to associate with one another, and use the common utensils of ordinary life, will they develop an articulate language?): There was but one language in the world until after 2247 B.C. **Lanterns.**–Said to have been invented by Alfred the Great, about 890.

CHRONOLOGY.

CEN.	YR.	
1900	19	100th Anniversary birth of Queen Victoria.
1800	63	Slavery abolished in the U.S.
1700	89	The French Revolution begins.
1600	85	Revocation of the Edict of Nantes.
1500	17	Reformation begins in Germany.
1400	31	Joan of Arc is burned alive.
1300	33	Gibraltar taken by the Moors.
1200	61	End of the Latin Empire.
1100	95	Fourth Crusade is commenced.
1000	**00**	**America discovered by Icelanders.**
900	80	Accession of Malachi II. in Ireland.
800	78	Alfred conquered by the Danes.
700	96	Charlemagne forms monarchy in Europe.
600	39	Egypt conquered by the Saracens.
500	06-42	Arthur said to reign in Britain.
400	76	Italy established as a kingdom.
300	82	The Goths choose Alaric as leader.
200	60	Roman army defeated by Persians.
100	17	Euphrates eastern bound'y Rom. Emp're.
0	**25**	**A. D. PONTIUS PILATE GOV'R JUDÆA.**
100	86	Sep. 30, Birth of Pompey the Great.
200	60	First Roman fleet launched.
300	20	Jerusalem taken by Ptolemy Soter.
400	01	Carthage sends 30,000 men to Sicily.
500	36	Jews restored under Cyrus.
600	04	Nebuchadnezzar king of Babylon.
700	35	Battle of the Six Hundred.
800	84	Lycurgus ends his travel of 9 years.
900	98	Heremon sole king of Ireland.
1000	**15**	**Solomon succeeds David as ruler.**
1100	00	Chow dynasty founded in China.
1200	06	Israelites conquered by Ammonites.
1300	83	Athenians taught how to sow corn.
1400	45	Canaan divided amongst the tribes.
1500	**03**	**Deluge of Deucalion, Thessaly.**
1600	89	Joseph's death ends book of Genesis.
1700	32	Ear-rings worn by Jacob's family.
1800	37	Birth of Esau and Jacob.
1900	20	The patriarch Abraham visits Egypt.
2000	**00**	**Religion of Brahma introduced.**
2100	11	Thebes founded by Busiris.
2200	45	First Kingdom said to be founded.
2300	00	India has an established government.
2400	50	Italy fabled to be ruled by Saturn.
2500	48	Noah reaches his 480th year.
2600		
2700	14	Death of Mahalaleel, aged 895.
2800		
2900	48	Labor regarded as a burden.
3000	00	Jupiter known as planet in Chaldæa.
3100	00	The metal brass, known before this.
3200		
3300	04	Adam reaches his 700th year.
3400		
3500	44	Tiu Mahalaleel leaves constellations.
3600		
3700	69	Birth of Enos, son of Seth.
3800	75	Abel's, the first recorded death.
3900		
4000	4	The tree of knowledge forbidden.

LANTHANIUM.–Rare metal, discovered by Mosander, 1839. **Laryngoscope.**–Instrument for viewing the larynx, first said to have been constructed by Dr. Avery of London, 1846. **Lathe.**–Said to have been invented by Talus, about 1240 B.C. **Latitude.**–First determined by Hipparchus of Nice, about 162 B.C. **Laudanum.**–Preparation of opium, first employed about 1630. **Law.**–The Jewish law was given by God, and promulgated by Moses, 1491 B.C.; the laws of Phoroneus, 1807 B.C., were the first Attic laws; Spartan laws by Lycurgus, 844 B.C.; Solon's Athenian laws, 594 B.C.; Roman laws of Servius Tullius, 566 B.C.

LEAD.–A metal known prior to 1491 B.C.; discovered in England at the Clydesdale mine, 1513; leaden pipes for conveying water were first used about 1236. See *Graphite.* **Leagues.**–The first mentioned is that of the four kings against the five, 1913 B.C. (*Gen. XIV.*). **Leap-Year.**–Originated with the astronomers of Julius Cæsar, 45 B.C. **Learning** and the Arts.–Flourished among the Greeks, under Pisistratus, 537 B.C., and under Pericles, 444 B.C. **Lease.**–A form of conveyance, invented by serjeant Moore, about 1535. **Leather.**–Was used by the ancients before 1487 B.C.; a leather cloth was invented by the Crocketts of Newark, N.J., 1849.

LEGION.–Corps of soldiers in the Roman armies, first formed by Romulus, about 720 B.C. **Lens.**–Used to modify vision, invented by Jansen in Holland, for his microscope, 1590. **Lent.**–Forty days fast before Easter, said to have been instituted by pope Telesphorus, 130. **Leprosy.**–A skin disease, first described, 1490 B.C. **Letters.**–Said to have been invented by Memnon of Egypt, about 1822 B.C. See *Alphabet* and *Epistles.* Sealed letters issued by the kings of France since about 1670. **Lettuce.**–Introduced into England from Flanders about 1520.

LEXICON.–See *Dictionary.* **Leyden Jar.**–For accumulating electricity, invented by Kleist of Leyden, 1745. **Libel.**–Was a capital offense by the Roman laws, 449 B.C. **Libraries.**–First public library known to have existed was founded at Athens by Pisistratus, about 540 B.C.; the first private library was Aristotle's, 334 B.C.; Alexandrian library of 400,000, 47 B.C.; oldest American library is that of Harvard College, 1638. **Licences.**–For levying money, first introduced by Richard I., about 1190. **Life Boat.**–First patented by Lukin, 1785; life-preservers made by Capt. Manby, and brought into use, 1808.

DICTIONARY OF DATES.

LIGHT.—The law of refraction discovered by Snellius, about 1624; its velocity discovered to be about 200000 miles per second, by Reaumur, about 1667. **Lighthouse.**—First one erected at Pharos, near Alexandria. 550 feet high, about 285 B.C. **Lightning Rods.**—First set up for the protection of buildings, by Benjamin Franklin, about 1752. **Lily.**—Native of Persia, Syria, and Italy, introduced into England before 1460. **Lime-Light.**—See *Drummond Light*. **Linen.**—Pharaoh arrayed Joseph in vestures of fine linen, 1716 B.C.; company of linen weavers established in London, 1368. **Linnæan System** of Botany.—Arranged by Linnæus, a Swede, 1725–30.

LITANIES.—Said to have been first used in processions, about 400. **Lithium.**—Lightest of the metals, discovered by Arfwedson, a Swede, 1817. **Lithofracteur.**—An explosive material, invented by Engels of Cologne, about 1869. **Lithographic Printing.**—Said to have been invented by Senefelder, about 1796. **Lithotomy.**—Surgical operation of cutting for the stone, said to have been first performed by Ammonius, about 240 B.C. **Liturgies.**—The Greek and Roman liturgies are the oldest, having been committed to writing during the 4th and 5th centuries. **Loadstone.**—See *Magnetism*. **Locks.**—Used by the ancient Egyptians, Romans, and Greeks.

LOCOMOTIVES.—First suggested by Oliver Evans, an American, 1781; Cartwright's patent, 1785; first built in America, 1830. **Locusts.**—One of the plagues of Egypt, 1491 B.C. **Logarithms.**—Invented by Napier of Merchiston, about 1614. **Logic.**—First eminent work on this subject is by Aristotle, about 330 B.C. **Log-Line.**—First used in navigation, about 1570. **Logograph.**—Instrument to represent the vibratory motions of the air-waves of speech, invented by W. H. Barlow, about 1874. **Longevity.**—Methuselah who attained the greatest age, died at the age of 969, 2349 B.C. **Longitude.**—First determined by Hipparchus, at Nice, who fixed the first degree in the Canaries, 162 B.C.

LOOM.—The art of weaving is coeval with civilization, yet the greatest improvement in the loom was made by Cartwright, 1787. **Lord's Day.**—Sunday, or the first day of the week, in contradistinction to the Jewish Sabbath, or the seventh day of the week, was first observed about 60 A.D. **Lots.**—The casting of lots was employed in the division of the land of Canaan, about 1444 B.C. **Lotteries.**—Said to have originated in Florence, about 1535. **Love Feasts**, or Agapæ.—Instituted in memory of the last time that Christ ate with his disciples. **Lucifer Matches.**—First used about 1834; friction matches invented by Walker, 1829.

CHRONOLOGY.

GEN.	YR.	
1900	09	100th Anniversary of birth of Lincoln.
1800	16	Philadelphia Centennial Exhibition.
1700	81–89	U.S. Constitution adopted and ratified.
1600	80	Matches invented by C. Hanckwitz.
1500	88	Paper first manufactured in England.
1400	**51**	**Glass first manufactured in England.**
1300	20	Invention of gunpowder by Schwartz.
1200	93	Spectacles invented by Alex. de Spina.
1100	60	Bills of exchange originate with Jews.
1000	05	New style of church architecture introduced.
900	41	Arithmetic introduced into Europe.
800	08	First bank established in Italy by Lombards.
700	**48**	**Christian era begins to be used.**
600	80	Organs first used in churches.
500	51	Silk manufacture introduced into Europe.
400	00	Bells introduced into Christian churches.
300	73	Bible translated into Gothic tongue.
200	16	Wines first made in Brixain.
100	95	Disputes first commence about Easter.
0	**08**	**A.D. JESUS DISPUTES WITH DOCTORS.**
100	10	Hydraulic instruments invented.
200	93	Time first divided into hours at Rome.
300	18	Academies first so called.
400	30	Old Testament history said to end.
500	26	First public library founded.
600	00	Maps invented by Anaximander.
700	13	Zachariah king of the Israelites.
800	69	Scales invented by Phidon.
900	56	Buddhism introduced into India.
1000	12	Building of Solomon's Temple.
1100	15	Mariner's compass known to Chinese.
1200	44	Dice invented by Palamedes.
1300	26	Isthmian games first introduced.
1400	**93**	**Cadmus introduces letters in Greece.**
1500	00	Date of the oldest papyri extant.
1600	34	The book of Genesis closes.
1700	13	Sacrifices to the gods first in Greece.
1800	91	Letters invented by Syphoas of Egypt.
1900	90	Cuneiform writing in use.
2000	00	Religion of Brahma introduced into India.
2100	**98**	**Misraim the first king in Egypt.**
2200	34	Chaldean astronomical observations begin.
2300	00	Kings said to rule in India.
2400	48	The cubit a measure of length.
2500	00	A dynasty of kings said to rule in Egypt.
2600	34	Chinese claim mariner's compass is known.
2700	17	Dynasty of Menes said to begin in Egypt.
2800	00	Brass and iron are in use.
2900	**00**	**Noah is 48 years of age.**
3000	00	Art of embalming is practiced.
3100	01	The Hindoo era commences.
3200		
3300	00	Agricultural implements of a rude form.
3400		
3500	00	People live in cities before this time.
3600		
3700	00	Some of the metals are known.
3800	15	Musical instruments are known.
3900		
4000	**4**	**The serpent deceiveth Eve.**

LYCEUM.—The first was in Attica, where Aristotle taught, 342 B.C. **Lymphatics.**—Absorbent vessels connected with digestion, discovered about 1650, by Rudbeck in Sweden. **Lynch Law.**—Infliction of punishment without the sanction of law, so called from a farmer in Virginia, about 1700. **Lyre.**—In its primitive form, is said to have been invented by the first Egyptian Hermes, and four strings were added, making seven, by Terpander, 673 B.C. **Macadamized Roads.**—Invented by John Macadam, 1819. **Maccabees**, Era of.—Commenced Nov. 24, 166. **Mace.**—Weapon used by cavalry of most ancient nations. **Machines.**—See *Mechanics*.

MAGAZINES.—At first a miscellaneous periodical, were first published about 1731. **Magi.**—At first fire worshippers, afterwards all learned men. Zoroaster, king of Bactria, reformed the sect about 550 B.C. **Magic Lantern.**—Its invention is ascribed to Roger Bacon, about 1260, also to Kircher, about 1665. **Magna Charta.**—Signed by King John, June 15, 1215. **Magnesium.**—Metal first obtained by Davy, 1808. **Magnetism.**—The attractive power of loadstone or magnet was known by the Greeks before 1000 B.C. *Dip of the needle* discovered, 1576, by Norman of London. *Artificial magnets* made by Knight, 1746. *Variation of the compass* observed by Bond, 1668.

MAGNIFYING GLASSES.—First made in England, by Roger Bacon, 1260. **Magnolia.**—Introduced into England from N. America, 1688. **Mail-Coaches.**—Introduced into England, 1784; introduced into the United States, about 1770, by B. Franklin. **Malt.**—Barley prepared for brewing, a duty laid upon it, 1667. **Manganese.**—Its distinctive character was proved by Pott, 1740. **Manometer.**—For measuring the rarity of gases, said to have been made by Guericke, about 1660. **Maps.**—Invented by Anaximander, about 600 B.C.; introduced into England, about 1489.

MARBLE.—First sculptured and polished by Dinœpus and Scyllis of Crete, about 568 B.C. *Marble Paper* was invented by a German of the 17th century. **Mariner's Compass.**—See *Compass*. **Mark.**—Silver coin of various northern nations; was used as a money of account before 1184. **Marriage Gifts.**—First conferred at the marriage of Rebekah, in the form of jewelry, 1857 B.C. **Mars.**—A planet known to the ancients; spots on its surface first observed by Fontana, 1636. **Martyrs.**—Stephen was the first Christian martyr, 37 A.D. **Masks.**—Said to have been invented by Poppæa, wife of Nero, about 60 A.D. **Masquerades.**—First became fashionable, about 1340.

DICTIONARY OF DATES.

MASS.—In the Roman Catholic church, first celebrated in Latin, about 394. **Matches.**—See *Lucifer*. **Materialism.**—Doctrine that the soul is the result of a particular organization of matter in the body, and is loosely applied to the system of Epicurus, about 310 B.C. **Mathematics.**—See *Arithmetic* and *Algebra*. **Matins.**—Morning service or prayers in the Roman Catholic church, were held Aug. 24, 1572. **Mausoleum.**—At Halicarnassus, one of the seven wonders of the ancient world, erected 350 B.C. **Mauve.**—A dye produced by Dr. Stenhouse from lichens, 1848. **Meat.**—Flesh of animals ordained as food, 2348 B.C.; extract of meat was made by Liebig, 1847.

MECHANICS.—The invention of the simple mechanical powers has been ascribed to heathen deities; Aristotle writes on mechanics, about 320 B.C.; Archimedes, who died 212 B.C., laid the foundation of many of those inventions which have been the boast of subsequent ages. See any particular invention in its proper order. **Medals.**—Were issued from the mint of ancient Rome, also by the Lydians, about 800 B.C.; modern medals began about 1453 in Germany. **Medicinal Simples.**—First introduced into Europe from the East, 1200. **Medicine.**—Pythagoras endeavored to explain the philosophy of disease and the action of medicine, about 529 B.C.; Hippocrates, the father of medicine, was born about 460 B.C. See *Physic*.

MEDIUM.—See *Spiritualism*. **Melodeon.**—Musical instrument, invented by Carhart, of Duchess county, N.Y., 1836. **Melodrama.**—Originated with Thos. Holcroft, 1793. **Memory.**—See Mnemonics. **Mensuration.**—The chief advancement in mensuration, as the properties of conic sections, the ratio of spheres, spheroids, etc., was made and discovered by Archimedes, who was born 287 B.C. **Mercator's Charts.**—Said to have been constructed by Gerard Mercator, about 1556. **Mercury.**—The planet nearest the sun, was known to the ancients. See *Quicksilver*.

MESMERISM.—Induction of an abnormal state of the nervous system, the doctrine of which was published by F. A. Mesmer, a German physician, 1766. **Metals.**—Tubal-Cain is mentioned as an instructor of every artificer in brass and iron, 3875 B.C.; Moses speaks of the seven metals, about 1500 B.C.; Virgil speaks of the melting of steel about 30 B.C. **Metaphysics.**—The science of abstract reasoning, originated with Aristotle, about 300 B.C.; modern metaphysics arose in the 15th century. **Metempsychosis.**—Transmigration of souls, the doctrine of which originated with Pythagoras, about 528 B.C. It is also ascribed to the Egyptians.

CHRONOLOGY.

CEN.	YR.	
1900	89	250th Anniversary of destruction of Basil.
1800	61-5	War of the American Rebellion.
1700	75 82	War of the American Revolution.
1600	18-48	Thirty Years War in Germany.
1500	60-98	Civil Wars in France.
1400	55-85	War of the Roses in England.
1300	31-1453	Hundred Years War—Eng. & Fr.
1200	61-68	**War of the Barons in England.**
1100	38-53	Civil War in England.
1000	68-92	War between England and Scot'd.
900	79	War between Otho and Lothaire.
800	10	Civil War among the Saracens.
700	72	Charlemagne begins war with Saxons.
600	03	**War between Persia and Greece.**
500	28-31	Persian War with Eastern Empire.
400	51	Attila's War with the Gauls.
300	38-84	Persian War with Rome.
200	91-8	Persian War of Galerius.
100	31-35	The Second Jewish War.
A.D.	**66**	**A.D. WAR OF THE JEWS BEGINS.**
100	50-46	The Third Punic War.
200	18-01	The Second Punic War.
300	95-87	Corinthian War—Sparta & Allies.
400	31-04	The Peloponnesian War.
500	25	War between Sparta and Samos.
600	51-46	**War between Romans and Sabines.**
700	43-23	The First Messenian War.
800	95	War between Israelites and Moabites
900	71	Seesack of Egypt's War ag'st Jerusalem.
1000	23	Absolom's Rebellion—he is killed by Joab.
1100	94	The Trojan War—lasts ten years.
1200	25	**War of the seven heroes of Thebes.**
1300	90	War bet. Benjamin and the 11 other tribes.
1400	51	Five kings wage war against Gideon.
1500	25	War against the Shepherd kings of Egypt.
1600	00	Bondage of Israelites in Egypt begins.
1700	07	Jacob is pressed by famine.
1800	91	**Destruction of Sodom and Gomorrah.**
1900	13	Abraham's War against Canaanites.
2000	80	The Hyksos conquer Lower Egypt.
2100	00	Osymandyas of Egypt's War against Bactria.
2200	18	Nimrod a mighty one on the earth.
2300	48	World destroyed by the flood.
2400	88	**Destruction of all creatures planned.**
2500	82	Jared dies at the age of 962.
2600	00	Wickedness increases in the world.
2700	69	Death of Cainan, aged 910.
2800	64	Death of Enos at the age of 905.
2900	62	Death of Seth, aged 912.
3000	74	**Death of Adam, the first man.**
3100		
3200	04	The 800th year of the life of Adam.
3300		
3400	44	The 100th year of the life of Jared.
3500		
3600	79	Birth of Cainan, son of Enos.
3700		
3800	76	Cain murders his brother Abel.
3900		
4000	4	Death or fall of the human race.

METEOROGRAPH.—Apparatus for registering the various atmospheric changes, invented by Secchi of Rome, about 1867. **Meteorology.**—Science treating of atmospheric phenomena, has been written on extensively since about 1600; *storm-warnings* were first issued in Holland, 1860; *daily weather charts* were first issued, 1872. **Meteors.**—Shooting stars, fire-balls, aërolites, etc., were described by Halley, Wallis, and others, about 1630; the periodicity of star showers about the 10th of August, was discovered by Quetelet, 1836. **Metonic Cycle.**—Period of 19 years, at the end of which the changes of the moon fall on the same days, corrected by Calippus, about 330 B.C. **METRIC SYSTEM.**—Of weights and measures in France, was completed in 1799, and legalized in 1801; legalized in the United States in 1866. **Metronome.**—To regulate time in the performance of music, invented by Maelzel, 1812. **Mezzotinto.**—Kind of engraving on copper, discovered by Von Siegen, 1643. **Michaelmas.**—Feast of St. Michael, said to have been instituted in 487. **Micrometer.**—Astronomical instrument used to measure any small distances, was invented by Wm. Gascoigne, about 1640. **Microphone.**—For rendering weak sounds audible, invented by Wheatstone, 1827.

MICROSCOPES.—Said to have been invented by Jansen, in Holland, about 1590. **Micro-Tasimeter.**—To measure infinitesimal pressure, invented by T. A. Edison, 1878. **Midwifery.**—Among the ancient Egyptians and Jews, women were the only practitioners; Hippocrates is styled the father of midwifery, in Greece, 460 B.C. **Milk,** Condensed.—A process for producing, invented by Mr. Borden, near New York, 1849. **Milky Way.**—In the heavens, was taught by Democritus to consist of stars, about 428 B.C. **Mills.**—Moses forbade millstones to be taken in pledge, 1451 B.C.; hand-mills were used by the Britons before 55 B.C. **MINING.**—Has been practiced from the remotest times; gold, silver, and iron are mentioned as being mined as early as 1520 B.C.; tin is said to have been mined in Britain before 1100 B.C. **Minié Rifle.**—Invented in France by M. Minié, about 1833, and surpassed all preceding it. **Mint.**—Mints for coining money existed among the ancient Lydians, before 862 B.C.; mints were established in England in Anglo-Saxon times; first in the United States at Philadelphia, 1792. **Minus.**—See *Plus*. **Mirrors.**—Of silver, were introduced by Praxiteles, 328 B.C.; mirrors or looking-glasses first made at Venice about 1300; in England, 1673. **Mitre.**—The cleft cap or mitre was worn by the Jewish high-priest, 1491 B.C.

DICTIONARY OF DATES.

MNEMONICS.–Artificial memory, was introduced by Simonides the younger, 477 B.C.; various systems have been published since 1600. **Models.**–The first were figures of living persons, and Dibutades, the Corinthian, is the reputed inventor of those in clay. **Mohammedan Era.**–Commenced July 16, 622. **Molybdenum.**–Whitish, brittle, almost infusible metal, discovered by Scheele, 1778. **Monastery.**–See *Abbey*. **Money.**–Mentioned as a medium of commerce, 1860 B.C. See *Coin*. **Money-order Office.**–Established in England, 1792. **Monitorial System.**–In education, in which pupils are employed as teachers, used by Dr. Bell at Madras in 1795, and about the same time it was adopted in London.

MONOPOLIES.–Were so numerous in England about 1601-2, that many were abolished by law. **Mont Blanc.**–In Switzerland, the summit was first reached by Saussure, Aug. 2, 1787. **Moon.**–Its opacity, and the true causes of eclipses were taught by Thales, 640 B.C.; maps of it were made by Hevelius, 1647. **Moral Philosophy.**–The science of ethics. Socrates, about 430 B.C., is regarded as the father of ancient, and Grotius, about 1623, the father of modern moral philosophy. **Mormonism.**–Founded by Joseph Smith, about 1823.

MORPHIA.–Alkaloid, discovered in opium by Sertürner, 1803. **Mortality Tables.**–The Northampton tables were compiled by Dr. Price, for 1735–80; and the Carlisle tables, by Dr. Hailsham, for 1780-87. **Mortars.**–Short guns for throwing bombs, used at Naples, 1435, and in England, 1543. **Mosaic Work.**–Of Asiatic origin, and is probably referred to in *Esther*, ch. i. 6, about 519 B.C.; attained great excellence in Greece, 300 B.C. **Mowers** and Reapers.–First made in the United States, 1845–50. **Mule.**–Spinning machine, invented by Samuel Crompton, 1775. **Murder.**–Capital punishment ordained for, 2348 B.C.

MURIATIC ACID.–Consisting of chlorine and hydrogen, obtained from common salt, a process for condensing it patented by Wm. Gossage, 1836. **Museum.**–Originally a quarter of the palace of Alexandria, its foundation being attributed to Ptolemy Philadelphus, who placed his library here about 280 B.C. **Music.**–Jubal is mentioned as the father of all such as handle the harp and the organ, 3875 B.C.; *vocal choruses of men first mentioned*, 556 B.C.; *musical notes* as at present used were perfected in 1338. (See *Gamut*). The *musical pitch* was settled in France, 1859. The Tonic *sol-fa system*, using the letters *d, r, m, f*, etc., for *do, ra, mi*, etc., were invented by Miss Glover of Norwich, about 1847.

CHRONOLOGY.

CEN.	YR.	
1900	75	200th Anniversary battle of Lexington.
1800	63	Battle of Gettysburg, July 1-3.
1700	98	Battle of the Nile, August 1.
1600	90	Battle of the Boyne, July 1.
1500	88	Battle or defeat of Spanish Armada, Aug.
1400	**29**	**Battle of Orleans, April 29.**
1300	46	Battle of Crecy, France, Aug. 26.
1200	14	Battle of Bouvines, July 27.
1100	38	Battle of the Standard, Aug. 22.
1000	66	Battle of Hastings, Oct. 14.
900	38	Battle of Simmecas, Aug. 6.
800	76	Battle of Andernach, Oct. 3.
700	**32**	**Battle of Tours, October 10.**
600	42	Battle of Oswestry, August 5.
500	52	Battle of Tagina, Italy, July.
400	51	Battle of Chalons, Romans def. Attila
300	23	Battle of Adrianople, Aug. 9.
200	43	Battle of Verona, emp'r Philip def'd.
100	94	Battle of Issus, Niger is slain.
0	**09**	**A.D. BATTLE OF TEUTOBURG.**
100	91	Battle of Thermopylæ, Greeks def'd.
200	07	Battle of Metaurus, Hasdrubal slain.
300	31	Battle of Arbela, Alexan'r def. Darius.
400	13	Battle of Syracuse, Athenians def'd.
500	48	Battle of Thymbra, Cyrus def. Crœsus.
600	79	Battle of the Trenches, Messenians def'd.
700	**35**	**Battle of the Six Hundred.**
800	70	Battle between Phœnicians & Assyrians.
900	41	Battle bet. Asa and the Ethiopians.
1000	48	Battle bet. David and the Jebusites.
1100	43	Battle bet. Jephthah and Ammonites.
1200	45	Battle bet. Gideon and Midianites.
1300	90	Battle bet. Benjamin and 11 tribes.
1400	**51**	**Battle of Joshua with the five kings.**
1500	31	Flight of Moses into Midian.
1600	19	Death of Levi at the age of 137.
1700	07	Joseph harshly treats his brethren.
1800	12	Abraham commanded to sacrifice Isaac.
1900	13	Battle bet. Abraham & kings of Canaan.
2000	59	Ninus introduces idolatrous worship.
2100	88	Kingdom of Egypt begins under Misraim.
2200	**47**	**The Confusion of Tongues.**
2300	00	A race of kings reign in India.
2400	48	The form of the ark determined.
2500	82	Death of Jared at the age of 962.
2600		
2700	17	Dynasty of Menes begins in Egypt.
2800		
2900	**62**	**Seth, the son of Adam, dies.**
3000		
3100	01	Beginning of the Hindoo era.
3200		
3300	17	Enoch is 65 years of age.
3400		
3500	44	Mahalaleel is 65 years of age.
3600		
3700	69	Vengeance of Cain and Lamech.
3800	15	Cain a fugitive and vagabond.
3900		
4000		**A God curseth the serpent.**

MUSKET.–A fire-arm succeeding the arquebus, about 1521. **Muslin.**–Cotton cloth, of oriental origin, first made in England, about 1670. **Myographion.**–Apparatus for determining the velocity of the nervous current, invented by Helmholtz, 1850. **Mythology.**–Traditions respecting the gods of any people, supposed to have been introduced among the Egyptians, about 1521 B.C. **Nabonassar**, Era of.–Commenced Feb. 26, 747 B.C. **Naphtha.**–A clear, combustible rock oil, known to the ancient Greeks. **Napier's Bones.**–Method of computing by means of marked pieces of ivory, discovered about 1616.

NATURAL GAS.–Has been known and used to some extent in China for centuries; known in the United States for many years previous to 1884, since which time it has been extensively explored. **Natural History.**–Was studied by Solomon, 1014 B.C.; by Aristotle, 384 B.C. **Natural Philosophy.**–Studied by Thales, about 600 B.C.; by Pythagoras, 590 B.C. **Naturalization.**–Making a foreigner a citizen of any country, first law passed in England, 1437. **Nature Printing.**–Impressing objects, such as plants, mosses, feathers, etc., into plates of metal, and afterwards taking casts or copies for printing from, introduced by Kniphoff of Erfurt, about 1740. **NAVIGATION.**–Began with the Egyptians and Phœnicians; first navigation laws enacted by the Rhodians, 916 B.C.; first in England, about 1194. **Nebular Hypothesis.**–Supposing the universe to have been formed out of shapeless masses of nebulæ, was put forth by Sir Wm. Herschel, 1811. **Needles.**–Modern needles were first made, 1545. **Needle-Gun.**–Invented by J.N. Dreyse of Sœmmerda, about 1827. **Nemean Games.**–Celebrated at Nemea in Achaia, before 1226 B.C. **Nephoscope.**–For measuring the velocity of clouds, invented by Karl Braun, about 1868. **Neptune.**–A primary planet, first discovered by Dr. Galle at Berlin, Sep. 23, 1846.

NEPTUNIUM.–New metal, discovered in tannalite, by R. Herrmann, 1877. **Newspapers.**–The Roman *Acta Diurna* were issued, it is said, 691 B.C.; the *Gazetta* was published in Venice, about 1536; first real newspaper in England was the *Public Intelligencer*, established by Roger L'Estrange, 1663; first continuously published in America was the *Boston News Letter*, 1702. **New Style.**–Reckoning time according to the present calendar, the old style calendar having been rectified by Pope Gregory XIII, 1582, by calling the 5th of Oct. the 15th; it was adopted in England, 1752, by calling the 3rd of Sept. the 14th. **Newtonian Philosophy.**–Respecting gravitation, etc., by Sir Isaac Newton, 1687.

DICTIONARY OF DATES.

NEW YEAR'S DAY.–Jan. 1, 713 B.C. was made the first day of the year, but subsequently various other dates were used. Late in the 16th century Jan. 1 was universally adopted as N. Y. D. **Nickel.**–White metal, discovered by Constadt, 1751. **Nihilists.**–Ultra-reformers, became known in Russia, 1872. **Niobium.**–A rare metal, discovered by Hatchett, 1801. **Nitre.**–See *Saltpeter.* **Nitric Acid,** (Aqua Fortis).–Compound of nitrogen and oxygen, first obtained by Raymond Lully, about 1287. **Nitrogen.**–Elementary gas, discovered by Rutherford, about 1772.

NITRO-GLYCERINE.–Intensely explosive amber-like fluid, discovered by Sobrero, 1847. **Nobility,** Titles of.–Originated with the ancient Goths, who first began to attract attention about 350 B.C. **Normal Schools.**–For the instruction of teachers, first established at Paris, Oct. 30, 1794. **Notaries Public.**–Said to have been first appointed by the primitive fathers of the Christian church in the 1st century. **Novels.**–First written about 400 A.D. **Numismatics.**–Science of coins and medals, first work in England published on this subject, by Evelyn, 1697. **Nunnery.**–The first founded is said to have been that to which the sister of St. Anthony retired at the close of the 3rd century.

OATHS.–Were taken by Abraham, 1892 B.C.; authorized, 1491 B.C.; administered in judicial proceedings by Saxons in England, about 600; administered to judges, 1344. **Obelisk.**–The first mentioned in history is that of Rameses, king of Egypt, about 1485 B.C. **Observatories.**–The first is said to have been erected on the top of the temple of Belus at Babylon, about 2234 B.C.; one was erected by Ptolemy Soter at Alexandria, about 300 B.C.; Imperial at Paris, 1667; Royal at Greenwich, 1675; National at Washington, 1845. **Odd Fellows.**–First lodge in the United States established at Baltimore, April 26, 1819. **Odes.**–Are very ancient. Anachreon's were composed about 532 B.C., and Pindar's from 498 to 446 B.C.

ODONTOLOGY.–Science of the teeth, may be said to have really begun with the researches of Richard Owen, about 1839. **Ogyges,** Deluge of.–Said to have occurred 1764 B.C. **Ohm's Law.**–For determining the quantity of the electro-motive force of the Voltaic battery, was published in 1827. **Oil.**–Used for burning in lamps, about 1921 B.C. **Old Testament.**–Finished about 430 B.C.; translated into Greek by Aquila, 128. **Olefiant Gas.**–Combination of hydrogen and carbon, formed artificially by Berthelot, 1862. **Oleomargerine.**–Invented 1869. **Olives.**–Their cultivation was taught by Cecrops at Athens, 1556 B.C.

CHRONOLOGY.

CEN.	YR.	
1900	15	100th Anniversary of battle of Waterloo.
1800	10	Franco-German War begins.
1700	88	First settlement in Australia.
1600	19	Habeas Corpus Act passed in England.
1500	12	The St. Bartholomew Massacre.
1400	86	Feuds of York and Lancaster ended.
1300	**21**	**Civil War in England.**
1200	15	King John granted Magna Charta.
1100	98	The fifth Crusade begins.
1000	91	Moors conquer Grenada and Seville.
900	61	Upper Italy annexed to Ger. Empire.
800	24	A monarchy formed in Norway.
700	71	Charlemagne sole emperor of France.
600	36	Christianity introduced into China.
500	46	Rome betrayed to Tolila, Dec. 17.
400	75	All Spain under the Visigoths.
300	66	Armenia and Iberia annexed to Persia.
200	96	Constantine regains possession of Britain.
100	96	Byzantium destroyed by Severus.
A. D. 0	**49**	**B.C. CÆSAR PROCLAIMED DICTATOR.**
100	21	A great eruption of Mt. Etna.
200	19	Saguntum destroyed by Hannibal.
300	04	Antioch founded by Seleucus.
400	04	The Peloponnesian War ends.
500	50	Cyrus, king of Media and Persia.
600	04	Phœnicians sail around Africa.
700	**91**	**The Kingdom of Lydia begins.**
800	39	Assyrian army devastates Judah.
900	71	Sesach plunders the temple.
1000	48	David makes Jerusalem his capital.
1100	04	Kingdom of Lacadæmon begins.
1200	34	Theseus forms democracy in Africa.
1300	43	Israelites enslaved for 15 years.
1400	**90**	**Sparta built by Lacedæmon.**
1500	31	Moses marries Jethro's daughter.
1600	35	Golfins used for burying the dead.
1700	15	Joseph, ruler of all the land of Egypt.
1800	22	Letters invented by Memnon of Egypt.
1900	17	Lot is taken captive by kings of east.
2000	48	Partholain said to land in Ireland.
2100	**12**	**Hieroglyphics invented by Mizraites.**
2200	47	Peleg, son of Eber, is born.
2300	48	The dove sent out from the ark.
2400	48	Noah's eldest son is born.
2500		
2600	34	Chinese claim mariner's compass is known.
2700	78	Cainan reaches his 900th year.
2800		
2900	90	Lamech is 180 years of age.
3000		
3100	30	Lamech begotten by Methuselah.
3200		
3300	82	Enoch is begotten by Jared.
3400		
3500	44	Jared begotten by Mahalaleel.
3600		
3700	69	Enos is begotten by Seth.
3800	75	Cain talks with his brother Abel.
3900		
4000		A God arraigneth Adam and Eve.

OLYMPIADS.–Era of the Greeks, commenced July 1, 776 B.C. **Olympic Games.**–Said to have been instituted in honor of Jupiter by the Idæi Dactyli, 1453 B.C. **Omens.**–Amphictyon was the first who is recorded as having drawn prognostications from omens, 1478 B.C. **Omnibuses.**–The original idea of such conveyances is ascribed to Pascal, about 1662; first made in Paris, 1828; in London, 1829; in New York, 1830. **Omnimeter.**–Surveying apparatus, invented by Eckhold of Germany, about 1869. **Operas.**–Said to have been first composed by Adam de la Hale, a Trouvère, who was born, 1240.

OPHTHALMOSCOPE.–Apparatus for inspecting the interior of the eye, invented by Helmholtz, about 1851. **Opium.**–Known to the ancients, it being mentioned by Homer, about 900 B.C. **Optics.**–A science studied by the Greeks before 400 B.C. **Optic Nerves.**–Said to have been discovered by Varole of Bologna, about 1538. **Optimism.**–Doctrine that everything which happens is for the best, its germ being found in Plato, 428 B.C. **Oracles.**–Revelations made by God to man, mentioned, *Exod.* XXV. 18–22, 1491 B.C. **Oranges.**–The sweet, or China orange, was first introduced into Europe from China by the Portuguese, 1547. **Oratorio.**–Kind of sacred musical drama, its origin being ascribed to St. Philip Neri, about 1550.

ORDINATION.–Of ministers into the Christian church, began with Christ and his apostles. **Organs.**–Their invention is attributed to Archimedes, about 220 B.C.; used in the churches of the Greek Empire, 65 A.D.; in England, about 951; played at a distance by electric connection, 1868. **Ornithology.**–Science treating of birds. Linnæus divided birds into six orders, 1735. **Orphan Houses.**–First erected by the emperor Trajan, about 75 A.D. **Orrery.**–Planetary apparatus to illustrate the motions of the heavenly bodies, supposed to have been invented about 458 B.C.

OSCILLATING ENGINE.–Invented by Witty, 1813. **Osmium.**–Metal, discovered by Tennant, 1803. **Ostrich.**–Native of Africa, mentioned in *Job* XXXIX. 14, 1520 B.C. **Ounce.**–Sixteenth part of the pound avoirdupois, and twelfth part of the pound troy, its precise weight having been fixed by Henry III., 1233. **Overseers.**–For the poor, were appointed in England, 1601. **Oxalic Acid.**–Process for obtaining it was patented by Dr. Dale, 1862. **Oxygen.**–Discovered in 1774 by Priestly. **Oysters.**–In Britain, are mentioned by Juvenal, 100 A.D. **Ozone.**–Was discovered by Schönbein of Basel, 1840.

DICTIONARY OF DATES.

PACIFIC CABLE.—From San Francisco to Hawaiian Islands, proposed 1891. **Padlocks.**—Said to have been invented by Beecher at Nuremberg, 1540, but are mentioned as early as 1381. **Pagans.**—The heathen, first so called, about 331. **Painting.**—Osymandyas of Egypt caused his exploits to be represented in painting, 2100 B.C. **Palæontology.**—A branch of geology, a science founded in the 19th century, by Cuvier, Mantell, Agassiz, Owen, Forbes, and Blainville. **Palladium.**—Rare metal, discovered by Dr. Wallaston, 1803. **Pallas.**—Planet, discovered by Olbers at Bremen, 1802. **Palm Sunday.**—Observed since 33 A.D.

PAMPHLETS.—First made their appearance about 1525. **Panoramas.**—Birds' eye views painted round the wall of a circular building, invented by Robert Barker, about 1788. **Pantagraph.**—Instrument for copying, reducing, or enlarging plans, etc., invented by Christopher Scheiner, about 1603. **Pantaleon.**—Musical instrument, invented by Pantaleon Hebenstreit, about 1735. **Pantheism.**—Doctrine of "everything is God, and God is one," was especially taught by Xenophanes, who died 500 B.C. **Pantomimes.**—Representations by gestures and attitudes, were introduced on the Roman stage by Pylades and Bathyllus, 22 B.C.

PAPAL INFALLIBILITY.—A dogma promulgated at the general council at Rome, July 18, 1870. **Paper.**—Invented in China, 170 B.C.; made of cotton, 1000; of linen rags, 1319; introduced into England, 1588; the first white paper, 1630. **Paper Hangings.**—Stamped paper for this purpose was first made in Spain and Holland about 1555. **Paper Mill.**—Invented by Whatman, 1770. **Paper Money.**—First used in America, 1740. **Parachutes.**—First constructed and used by Blanchard, 1785. **Paraffin.**—A substance resembling spermaceti, first produced by distillation of coal, by Reichenbach, 1830. **Parasols.**—Were used by the ancient Egyptians; came into general use about 1820.

PARCHMENT.—Invented for writing books by Attalus of Pergamus, about 887 B.C. **Pardons.**—Were first proclaimed at coronations, by Edward III., 1327. **Parishes.**—Their boundaries first fixed in England by Honorius, 636. **Parkesine.**—Substance composed of gun-cotton, obtained from various vegetable bodies, and oil, invented by Alex. Parks of Birmingham, about 1862. **Parks.**—Were attached to villas by ancient Romans. **Parricide.**—Such a crime not being thought possible, there was no law against it at either ancient Athens or Rome. The first mentioned is that of L. Ostius, who killed his father, about 172 B.C.

CHRONOLOGY.

CEN.	YR.	
1900	15	100th Anniversary battle of New Orleans.
1800	65	Lee's surrender at Appomattox, April 9.
1700	73	Tea destroyed in Boston Harbor.
1600	40	Cromwell's Long Parliament assembled.
1500	65	Revolt of the Netherlands begins.
1400	53	Constantinople taken by the Turks.
1300	79	Poll tax imposed by Eng. Parliament.
1200	34	War between Engl'd and France.
1100	68	Copenhagen, Denmark, founded.
1000	43	Constantinople besieged by Russians.
900	55	Battle of Augsburg, August 10.
800	73	Locusts lay waste large part of Europe.
700	85	Saxons submit to Charlemagne.
600	81	Great famine in Syria and Spain.
500	31	Belisarius defeated by the Persians.
400	81	Odoacer conquers Dalmatia.
300	96	Greece is invaded by Alaric.
200	41	Persian War of Gordian III.
100	01	First Dacian War commences.
A. D.	42	A.D. PETER IMPRISONED BY AGRIPPA.
100	06	Ptolemy dethroned by Cleopatra.
200	00	The first Macedonian War.
300	08	Fabius defeats the Samnites.
400	15	Expedition of Athenians against Sicily.
500	15	The Temple of Jerusalem finished.
600	26	Zephaniah called as a prophet.
700	22	China divided into principalities.
800	84	Lycurgus establishes his laws in Lacedæmon.
900	86	Samos and Utica founded.
1000	58	Pelasgians control the Mediterranean.
1100	24	Thebes built by the Bœotians.
1200	45	Gideon routs the Midianites.
1300	25	Ehud rescues Israelites from bondage.
1400	80	Troy said to be built by Dardanus.
1500	82	Cecrops said to come into Attica.
1600	15	Ethiopians settle near Egypt.
1700	02	Joseph buys all the land of Egypt.
1800	98	Destruction of Sodom and Gomorrah.
1900	21	Oil used for burning in lamps.
2000	07	Eunuchs first employed by Semiramis.
2100	00	Osymandyas' exploits shown in paintings.
2200	45	Nineveh is founded by Ashur.
2300	47	Noah, after the deluge, leaves the ark.
2400	69	Freedom given in selecting wives.
2500		
2600	00	The world is growing worse.
2700		
2800	64	All the days of Enos are numbered.
2900		
3000	00	The planet Jupiter is known.
3100		
3200	00	Enos said to be walking with God.
3300		
3400	00	The work of Adam's creation goes on.
3500		
3600	00	Sheep-raising is followed as livelihood.
3700		
3800	76	Abel's offering is respected by the Lord.
3900		
4000	4	Adam and Eve hide themselves.

PARTHEON.—Temple at Athens, dedicated to Minerva, erected about 442 B.C. **Passion Week.**—The week preceding Easter, so called since the Reformation. **Passover.**—Most solemn festival of the Jews, instituted 1491 B.C. **Patents.**—First granted in England, 1344; first in America, 1790. **Pavements.**—The Carthaginians (Carthage founded 1233 B.C.) are said to have been the first to pave their streets with stones; London was first paved about 1533; Paris, 1186. **Pawnbroking.**—Practiced by Roman emperors in lending money upon land; borrowing money on deposited pledges is traced to Perugia, Italy, about 1462.

PEACHES.—Said to have been introduced into England from Persia, about 1562. **Pearls.**—Mentioned in Job xxviii. 18, 1520 B.C. **Pedlars.**—First licensed in England, 1698. **Pedometer** and Odometer.—For measuring the distance traversed by a walker or carriage, the latter was used in the 15th century, and the former first patented, 1793. **Pendulums.**—Origin traced to Galileo's observation of the vibrations of a hanging lamp in a church at Pisa; the isochronous property applied to clocks by Galileo, about 1639. **Penny.**—The first silver coin made in England, and was current among the Anglo-Saxons. **Penny Postage.**—First introduced in England, 1839.

PENS.—Quills in use previous to 1803; steel pens first made by Mr. Wise of England, 1803, and greatly improved by Mr. Gillott of Birmingham, 1822. **Pensions.**—Granted in England before 1700; first in America, 1776. **Pentameter Verse.**—First used about the 7th cen. B.C. **Pentateuch.**—First five books of the Bible, probably written about 1452 B.C. **Pentecost.**—Solemn festival of the Jews, instituted 1491 B.C. **Pepper.**—Was used as a medicine by the Greeks, 500 B.C. **Pepsin.**—Organic substance, found by Schwamm in gastric juice, and experimented on by M. Blondlot, 1843. **Percussion Caps.** First used between 1820 and 1830. **PERFUMERY.**—Used 1490 B.C.; it became fashionable in England about 1550. **Perjury.**—The ancient Greeks punished it by marks of infamy, and the Romans by throwing from a precipice. **Perpetual Motion.**—Declared impossible by Sir Isaac Newton, and affirmed by the academy of sciences at Paris, 1775. **Persian Era** of Yezdegird.—Commenced June 16, 632. **Perspective.**—In drawing, was known to the ancients, but seems to have been a lost art until revived by Dürer, Del Borgo, and Bramantino, about 1440. **Peruke** or Wig.—The ancients used false hair, but the present wig was first worn in Italy about 1620.

PERUVIAN BARK.–Also called Jesuits' Bark, from the cinchona tree used in the manufacture of cinchona and quinine, discovered in Peru about 1535 by a Jesuit. **Pessimism.**–The doctrine that everything which happens is for the worst, has been brought out as a philosophical system since 1819, but was taught in many ancient writings. **Pestalozzian System** of Education.–Devised by John Henry Pestalozzi, who was born in Switzerland, 1746, and died, 1827. **Petard.**–Instrument used for blowing up gates, barriers, etc., invented by the Huguenots, about 1579.

PETITIONS.–Of the time of Edward I., 1239, are extant. **Petroleum.**–Discovered in the bituminous coal regions of N.W. Pennsylvania, 1859. **Pews.**–Were used in churches in London, 1453. **Phalanx.**–Consisted of 8000 men in a square battalion, that of Philip of Macedon being formed about 360 B.C. **Pharmacy.**–Knowledge of the chemical and medicinal properties of drugs; a society was formed in England in 1841. **Pharos.**–Of Ptolemy Philadelphus of Alexandria, one of the seven wonders of the world, completed about 283 B.C. **Phenophthalmoscope.**–For investigating the movements of the eye-ball, invented by Donders of Utrecht, about 1870.

PHILIPPICS.–Orations of Demosthenes against Philip II. of Macedon, 352-341 B.C. **Philology.**–Science of language, much studied during the 19th century. **Philosophical Lamp.**–Constructed by Johann Wolfgang Döbereiner about 1823. **Philosophy.**–Pythagoras first adopted the name of philosopher about 528 B.C. **Phonendoscope.**–For observing the color-figures of liquid films under the action of sonorous vibrations, invented by Sedley Taylor, 1877. **Phonograph.**–For imitating vocal sounds of speech, projected by Mr. Creed, 1747; patented by Mr. Fenby, 1863; new one by Mr. Edison, 1877. **Phonography.** Suggested by Franklin, 1768; invented by Isaac Pitman, 1837.

PHONOSCOPE.–For testing the quality of musical strings, invented by M. Kœnig, about 1862. **Phosphorus.**–Discovered by Brandt of Hamburg, 1667, who procured it from urine. **Phosphor-Bronze.**–Alloy of copper, tin, and phosphorus, invented by Montefiore-Levi and Künzel, of Belgium, 1867. **Photo-Engraving.**–The principle discovered by Niepce in the early part of the 19th century; some methods for half-tone engravings were patented by Fox Talbot, 1852 and 1858. **Photography.**–The action of light on chloride of silver was known as early as the 16th century; studied by Scheele, 1777; by Wedgewood, 1802; Daguerre, 1824; Talbot, 1839.

CHRONOLOGY.

CEN.	YR.	
1900	43	200th Anniversary birth of Jefferson.
1800	23	Monroe Doctrine declared, Dec. 2.
1700	77	Burgoyne's surrender, Oct. 17.
1600	82	Pennsylvania settled by William Penn.
1500	**19**	**Cortez begins conquest of Mexico.**
1400	15	Battle of Agincourt, France, Sep. 22.
1300	83	Moscow burnt by the Tartars.
1200	93-99	War between Genoa and Venice.
1100	91	Total eclipse of the sun, June 23.
1000	98	Antioch taken by the Crusaders.
900	23	Battle of Soissons, Fr., June 15.
800	**06**	**Charlemagne proposes division of empire.**
700	74	Charlemagne crowned King of Italy.
600	40	Alexandria, Egypt, taken by Amrou.
500	39	Italy invaded by the Franks.
400	55	Saxon Heptarchy formed in Britain.
300	95	The Visigoths plunder Thessaly.
200	94	Allectus usurps throne of Britain.
100	67-85	War in Southern Germany.
0	**62**	**A.D. ST. PAUL IMPRISONED AT ROME.**
100	00	Birth of Julius Cæsar, July 12.
200	17	Romans defeated at Thrasimene.
300	00	Euclid of Alexandria, the mathematician.
400	00	Socrates put to death by Athenians.
500	00	Asiatic Greek cities revolt from Persia.
600	00	Solon expels Megarians from Salamis.
700	21	First recorded eclipse of the moon.
800	**18**	**The Temple is repaired.**
900	92	Solomon has seven hundred wives.
1000	98	The kingdom of Sicyon ends.
1100	41	Amazons burn the temple of Ephesus.
1200	50	Argonautic expedition to Colchis.
1300	44	The kingdom of Argos is divided.
1400	13	Israelites enslaved by Cushan.
1500	74	Israelitish male children drowned.
1600	**89**	**Joseph comforth his brethren.**
1700	96	The reign of Ogyges begins.
1800	97	The institution of circumcision.
1900	70	Chinese claim to discover the Pole star.
2000	48	Partholani said to land in Ireland.
2100	13	Zoroaster said to found the Magi.
2200	18	Monarchical government introduced.
2300	41	Noah begins replenishing the earth.
2400	**48**	**God makes a covenant with Noah.**
2500	82	The days of Jared are numbered.
2600		
2700	00	Dynasty of Manetho begins in Egypt.
2800		
2900	62	The days of Seth are numbered.
3000		
3100	**30**	**Methuselah is 187 years old.**
3200		
3300	00	Population continues to increase.
3400		
3500	44	The age of Mahalaleel is 65.
3600		
3700	69	Eve, the wife of Adam, is aged 235.
3800	15	Cain convicted, condemned, and banished.
3900		
4000	**3**	**Birth of Cain, first birth in the world.**

PHOTOMETER.–Light measurer, invented by Dr. Ritchie, 1825. **Phrenology.**–Study of the external form of the human scull, as indicative of mental powers and moral qualities, first propounded by Dr. Gall, a German physician, born in 1758. **Physic.**–Theory or practice of medicine, appears to have been first practiced by the Egyptian priests See *Medicine*. **Physics.**–Natural philosophy, among the first who gave especial attention to the subject, are Thales, about 600 B.C., Pythagoras, 590, and Aristotle and Plato, 350 B.C. **Physiognomy.**–Study of the dispositions from the features of the face, the origin of the science is attributed to Aristotle, about 350 B.C.

PHYSIOLOGY.–Science which treats of the organs of living bodies and their functions. The work of Müller (born 1801) is one of the earliest on the subject. **Pianoforte.**–The invention is attributed to Cristofalli, an Italian, J.C. Schröter, a German, and Marius, a Frenchman, early in the 18th century. **Pigeons.**–Employed as carriers by the ancients. Hirtius and Brutus corresponded by means of pigeons at the siege of Modena, about 40 B.C. **Pilgrimages.**–Began with that of the empress Helena to Jerusalem, 326. **Pillory.**–Frame used for the infliction of punishment, used as early as 1256.

PINS.–Mentioned first in an English statute, 1483, and first made, 1543; first made by machinery in America, 1832. **Pipes.**–Of lead, for conveying water, first made in 1544. See *Tobacco Pipes*. **Piracy.**–Was severely suppressed by the Romans before 67 B.C. **Pisciculture.**–First laws enacted for the protection of fisheries were enacted in England, 1284. **Pistols.**–The smallest fire-arms, said to have been invented at Pistoia in Italy; first used by English cavalry, 1544. **Pitch** and Tar.–First made from pit coal at Bristol, 1779. **Plagues.**–Those of Egypt were 1491 B.C.; the first recorded general plague in all parts of the world occurred 767 B.C.

PLANETS.–Jupiter, Mars, etc., see each in its alphabetic order. **Planetarium.**–See *Orrery*. **Platonic Philosophy.**–That founded by Plato, and noted for comprehensiveness, 409 to 347 B.C. **Planimeter.** For measuring the area of any figure by the passage of a tracer round about its perimeter, invented by Amsler in England about 1872. **Planing Machine.**–One for wood was invented by Bramah, about 1802, and one for iron, by Clement, 1825. **Plaster of Paris.**–First found near Paris. Casting with it from the face was first discovered by Verrochio, about 1466.

PLATING.—Art of covering baser metals with a thin coat of silver, nickel, etc., said to have been invented by a Birmingham spur-maker; electro-depositing was first successfully done by Mr. Spencer in England, and Prof. Jacobi in Russia, 1837-8. **Platinum.**—Heaviest of all the metals. (See *Specific Gravity* under Weights and Measures). It was found in South America by the Spaniards, and was unknown in Europe before 1741. **Plays.**—First acted at Rome, 240 B.C. Pleadings.—Originated with Clothaire, about 616. **Plows.**—Mentioned in *Deut.* xxii. 10, 1451 B.C.

PLUMS.—The finer varieties introduced into England from Italy and Flanders about 1522. **Plumbago.**—See *Graphite.* **Plus** (+) and **Minus** (−).—Their invention is attributed to either Christopher Rudolph, about 1522, or to Michael Stifelius, about 1544. **Pneumatic Despatch.**—For conveying letters and parcels through tubes by means of atmospheric pressure and a vacuum, first used in London, 1861. **Pneumatic Loom.**—In which compressed air is the motive power, invented by Mr. Harrison about 1864. **Pneumatics.**—Science treating of the mechanical properties of air and gases. See *Air.* **Poet-Laureate.**—Chaucer assumed this title about 1389.

POETRY.—The song of Moses on the delivery of the Israelites, 1491 B.C., is the most ancient poetry extant. **Poisoning.**—A conspiracy was formed by a number of Roman ladies who poisoned their husbands, 331 B.C., and 170 of them were executed. **Polar Clock.**—By which time is measured by polarized light, invented by Wheatstone, about 1849. **Polarization of Light.**—Discovered by Huyghens, about 1692. **Pole Star.**—In the constellation *Ursa Minor*; its discovery is ascribed by the Chinese to their emperor, Hong-ti, who flourished about 1970 B.C. **Police.**—The London police grew out of the London watch, instituted about 1253.

POLITICAL ECONOMY.—A science, dating in England from the publication of Adam Smith's "Wealth of Nations, 1776. **Politician:**—The term was first used in France about 1569. **Poll-Tax.**—Existed among the ancient Romans; first levied in England, 1380. **Polo.**—Game of ball termed hockey played on horseback, became popular about 1872. **Polygamy.**—Practiced by Lamech, 3814 B.C.; was permitted among most of the early nations. **Polytechnic Institutions.**—First was opened at Paris, 1794. **Pompey's Pillar.**—Famous column standing in the neighborhood of Alexandria, said to have been erected by Publius, prefect of Egypt, about 296 A.D.

CHRONOLOGY.

CEN.	YR.	
1900	71	100th Anniversary of great Chicago fire.
1800	67	Dominion of Canada established.
1700	56	Black-Hole suffocation in Calcutta.
1600	53	Oliver Cromwell is Lord Protector.
1500	35	The first English Bible printed.
1400	54	Treaty of peace bet. Milan and Venice.
1300	90	**The sacred war in Prussia.**
1200	98	Edward ravages and subjects Scotland.
1100	89-92	The third Crusade occurs.
1000	80	Henry IV. excommunicated.
900	77	Dalmatia and Istria acquired by Venice.
800	09	Hamburg fortified by Charlemagne.
700	14	**Charles Martel governs all France.**
600	48	Roman Africa invaded by Saracens.
500	69	Milan, Italy, surrenders to Alboin.
400	76	Rome is taken by Odoacer.
300	92	Usurpation of Eugenius.
200	56	Persians invade Mesopotamia.
100	62-3	War bet. Rome, and Parthia, Asia.
A.D.	**0**	**19 B.C. ROME AT ITS GREATEST GLORY.**
100	46	Corinth destroyed by the Romans.
200	46	War between Egypt and Syria.
300	22	Demosthenes takes poison, Oct. 13.
400	31-04	The Peloponnesian War occurs.
500	13	Second temple of Jerusalem finished.
600	25	Babylon independent under Nabopolassar.
700	13	**An angel destroys Sennacherib's army.**
800	84	Olympic Games restored at Elis.
900	10	Elijah foretells a dreadful famine.
1000	95	Saul annointed king of Israelites.
1100	04	Heraclidæ return into Peloponnesus.
1200	52	Israelites under the Midianites.
1300	83	Ceres comes into Athens.
1400	97	**Amphictyonic council established.**
1500	31	Moses attempts to deliver his people.
1600	88	Jacob is buried in Canaan.
1700	16	Isaac dies at the age of 180.
1800	17	Eber, the fifth from Noah, dies.
1900	27	Ninyas put to death, Arius reigns.
2000	00	Cuneiform inscriptions are in use.
2100	98	**Misraim assumes title of king in Egypt.**
2200	33	Nineveh built, probably by Nimrod.
2300	48	Methuselah dies, aged 969.
2400	09	Corn said to be cultivated by Ceres.
2500	00	Mariner's compass known before this.
2600	00	Wickedness continues to increase.
2700		
2800	64	**Enos reaches his 905th year.**
2900		
3000	04	Adam reaches his 900th year.
3100		
3200	00	Gold used before this time.
3300		
3400	00	People lived in cities before this time.
3500		
3600	00	Embalming said to be known.
3700		
3800	74	Lamech practices polygamy.
3900		
4000	4	**Adam gives names to the creatures.**

PONTIFFS.—Highest Roman sacerdotal order, established by Numa Pompilius, about 690 B.C. **Pope.**—The title was first adopted by Hyginus, 139. **Poplin.**—Elegant silk and worsted fabric, made in France before 1693. **Porcelain.**—Formed of earth *kaolin*, was made in China in the 2nd century after Christ. **Porter.**—A beverage first so called in London about 1730. **Positive Philosophy.**—Set forth by Auguste Comte, an eminent mathematician, born about 1795. **Posts.**—Said to have originated with Cyrus, who erected post-houses throughout Persia, about 550 B.C.

POST-OFFICES.—First established between Vienna and Brussels, 1516; existed in England, 1635; first in America, 1710; postage stamps introduced in England, 1840; in America, 1847. **Potassium.**—A metal discovered by Davy, 1807. **Potatoes.**—Native of Chili and Peru, first introduced into England, 1565. **Pottery.**—The manufacture of earthenware existed among the Jews as an honorable occupation before 1300 B.C. **Pound.**—A weight, *pondus*, which existed among the ancient Romans. **Prætorian Guards.**—Instituted by the emperor Augustus, 13 B.C.

PRÆTORS.—Roman magistrates. One was appointed in 365 B.C.; a second, 252 B.C. **Prayers.**—"Then began men to call upon the name of the Lord" (*Gen.* iv. 26), 3875 B.C. **Precedence.**—Established in very early ages, and was among st the laws of Justinian, 527-9 A.D. **Priest.**—In *Gen.* xiv. 18, Melchizadek, king of Salem, is called "priest of the most high God," 1913 B.C. **Primer.**—A book so called from the Romish book of devotions, formerly set forth as the first book children should read in schools; primers were printed in 1535. **Primogeniture,** Right of.—A superiority that the first-born has over his brethren, a usage brought down from the earliest patriarchal ages.

PRINTING.—Block printing invented by the Chinese, about 593 A.D.; movable type said to have been invented in the 10th century, also by Faust at Mentz, 1440; first book printed in America at Mexico, 1535; first printed in the United States at Cambridge, 1639; a cylinder press patented by Nicholson, 1790; Adam's press, 1830; Hoe press, 1847; printing in colors was begun in 1455. **Prisoners of War.**—Enslaved by ancient nations; first exchanged in the 13th century. **Privateers.**—Licensed private ships in time of war, the practice being said to have originated with Edward I., about 1295. **Privy Council.**—The first is said to have been instituted by Alfred, 895.

PROBABILITY, THEORY OF.—Originated by Pascal, and taken up by Fermat, in their correspondence, 1654. **Probate Court.**—Established in England, 1857. **Profiles.**—The first recorded profile taken was that of Antigonus, who, having but one eye, his likeness was so taken, 330 B.C. **Promissory Notes.**—Regulated and allowed to be assignable, 1705. **Propelling Wheels.**—Invented by Volturius, 1472. **Prophets.**—An order instituted, or at least reformed, by Samuel, who was born about 1137 B.C., though Abraham is spoken of as a prophet, 1896 B.C.

PROTEIN.—The basis of albumen, fibrin, and casein, the term being first used by Mulder, about 1844. **Protestants.**—First so called at the diet of Spires in Germany, April 19, 1529. **Proverbs.**—Those of Solomon are dated about 1000 B.C. **Proxies,** Voting by.—An ancient practice in the English parliament, was regulated by law, about 1630. **Prussic Acid.**—Discovered by Diesbach, 1703. **Psalms.**—Those of David were collected by Solomon, about 1000 B.C. **Pseudoscope.**—A reversed stereoscope, invented by Wheatstone, 1852. **Psychrometer.**—For measuring the amount of elastic vapors in the atmosphere, invented by Guy Lussac, who died, 1850.

PTOLEMAIC SYSTEM.—By Claudius Ptolemy of Egypt, about 140 A.D., supposes the earth to be fixed in the centre of the universe, and that the sun, moon, and stars move round once in twenty-four hours. The Pythagorian System (500 B.C.), fixing the sun as the centre, was revived in 1530 by Copernicus, and subsequently demonstrated by Kepler (1619), and Newton (1687). **Public Schools.**—See *Common Schools*. **Pulley.**—Said to have been invented by Archytas of Tarentum, about 400 B.C.

PULMAN CARS.—The palace cars were patented in 1864, and the vestibuled, 1887. **Pumps.**—The invention is ascribed to Danaus, at Lindus, 1485 B.C., and subsequently to Ctesibius of Alexandria, about 224 B.C. **Punctuation.**—The period (.) is the most ancient; the colon (:) was introduced about 1485; the comma (,), 1521; the semicolon (;), 1570; the interrogation (?), asterisk (*), and parentheses (), 1387. **Puppets.**—Of which the eyes, arms, etc., were moved by strings, were used by the ancients before 444 B.C. **Purgatives.**—For evacuating the intestines, are ascribed to Actuarius, a Greek physician, 1245.

CHRONOLOGY.

CEN.	YR.	
1900	62	100th Anniversary Battle of Amherstam.
1800	35	Prof. Morse invents the telegraph.
1700	14	Accession of the House of Hanover.
1600	49	Charles I. beheaded, January 30.
1500	39	Monasteries closed in England.
1400	98	Vasco di Gama doubles Cape of Good Hope.
1300	56	"Golden Bull" by Chas. IV. of Germany.
1200	94	Parliament established in Paris.
1100	98	Bohemia erected into a kingdom.
1000	99	Kingdom of Jerusalem formed.
900	62	Saracens defeated by Phocas.
800	98	Alfred translates Latin into Anglo Saxon.
700	72	Charlemagne begins war with Saxons.
600	94	Clovis II. becomes king of France.
500	28-31	War bet. Persia and East'n Empire.
400	49	Saxons, Angles, and Jutes land in Britain.
300	12	Constantine professes Christianity.
200	97-8	Persian War with Galerius.
100	84	Caledonians break third wall of Antonius.
B.C. 0	94	A.D. ST. JOHN BANISHED TO PATMOS.
100	92	The Teutons defeated by Marius.
200	24	Romans cross the Po for first time.
300	06	Alexander's successors assume title of king.
400	49	The decemvirs banished from Rome.
500	12	Babylon revolts from Darius.
600	36	Tartars defeat Chinese great standard.
700	20	Second and third eclipse of moon recor'd.
800	95	The Moabites revolt from Israel.
900	12	Jehoshaphat demolishes high places.
1000	93	Saul rejected, David annointed king.
1100	24	Migration of the Rolian colonies.
1200	85	Deborah defeats the Canaanites.
1300	54	Eglon, king of Moab, oppresses Israel.
1400	53	First Olympic games celebrated at Elis.
1500	51-11	Moses continues in Midian.
1600	35	The king of Egypt oppresses Israelites.
1700	02	Financial panic begins in Egypt.
1800	96	Birth of Isaac, the child of promise.
1900	00	The Pelasgi dwell in Greece.
2000	17	Semiramis, first woman with sovereignty.
2100	55	Nahor, son of Serug, is born.
2200	43	Founding of Nineveh by Ashur.
2300	48	Blood and murder are forbidden.
2400	48	The earth has become corrupt.
2500	82	Death of Jared at the age of 962.
2600		
2700	00	Egyptian history said to begin.
2800		
2900	48	Birth of Noah, the righteous.
3000		
3100	01	Commencement of Hindoo Era.
3200		
3300	82-3382	Jared begetteth sons and daughters.
3400		
3500	44	Birth of Jared, son of Mahalaleel.
3600		
3700	69	Lamech avenged seventy-sevenfold.
3800	75	Cain builds a city named Enoch.
3900		
4000	4	The serpent converses with Eve.

PURGATORY.—Doctrine of the Roman Catholics that there is a middle place between heaven and hell, known since about 250 A.D. **Purification.**—After childbirth, ordained by the Jewish law in 1490 B.C. **Purple.**—Mixed tinge of blue and scarlet, discovered at Tyre before 1490 B.C. **Pyramids of Egypt.**—They are supposed to have been commenced about 1500 B.C. The greatest is said to have been erected by Cheops, 1082 B.C. **Pyroleter.**—Fire-extinguisher for use in ships, invented by Dr. Paton, about 1875. **Pyrometer.**—Thermometer for measuring the heat of furnaces, described by Muschenbroek, 1731.

PYROPHONE.—A singing-flamed musical instrument, invented by Frédéric Kastner of Paris, about 1873. **Pythagorean** Philosophy.—By Pythagoras, about 555 B.C. He taught the doctrine of the transmigration of souls, forbid the eating of flesh and beans, invented the multiplication table, improved geometry, and taught the present system of astronomy. **Pythian Games.**—Instituted in honor of Apollo, near the temple of Delphi, about 1263 B.C. — **Quackery.**—Quack medicines were taxed in 1783. **Quadrant.**—Mathematical instrument, introduced about 290 B.C.

QUADRILLE.—A dance, made popular about 1810. **Quadruplex** Telegraphy.—Four messages along one wire, perfected in 1876 by Prescott, Smith, and Edison. **Quakers.**—A sect founded about 1646, in England, by George Fox. **Quarantine.**—First observed at Venice about 1127. **Quaternion.**—Important mathematical method or calculus, invented by Sir Wm. Hamilton, about 1843. His "Lectures on Quaternions" was published in 1853. **Queen.**—The first woman invested with sovereign authority was Semiramis, queen of Assyria, 2017 B.C. **QUICKSILVER.**—In its liquid state, mercury. Theophrastus, about 300 B.C., mentions it as a derivative of cinnabar. Its use in refining silver was discovered in 1540. **Quills.**—Said to have been first used for pens, about 553. **Quince.**—Introduced from Austria before 1573. **Quinine.**—An alkaloid much used in medicine, discovered in 1820, by Pelletier and Caventou. **Quinquagesima** Sunday.—Said to have been first appointed by Gregory the Great, about 600. **Quoits.**—A game said to have originated with the Greeks, about 1453 B.C.

DICTIONARY OF DATES.

RACES.—Horse-races were among the favorite games of ancient Greece. Known in England before 1130. **Rack.**—Engine of torture, for extracting a confession from criminals, used in south Europe in the 1st and 2nd centuries. **Radiation of Heat.**—First began to receive attention by Sir John Leslie and Count Rumford, about 1802. **Radiometer.**—Instrument which rapidly revolves in a vacuum, under the influence of light, invented by Wm. Crookes, 1873. **Ragged Schools.**—Free schools for outcast destitute ragged children. One was opened by John Pounds of Portsmouth, Eng., about 1838.

RAILWAYS.—Short roads were constructed in Newcastle, Eng., by Mr. Beaumont, 1602; an iron railway near Sheffield, Eng., 1776; first in America was the Baltimore and Ohio, 1828. **Railway Break.**—Invented by Achard, 1868. **Rainbow.**—Mentioned as the token of the covenant with Noah, 2348 B.C.; its theory developed by Kepler, 1611. **Ransome's Artificial Stone.**—Invented by Fred. Ransome 1848. **Rape.**—Punished with death by the ancient Jews, Goths, and Romans. **Rationalism.**—Doctrine that there is no divine revelation, and that there is no other means of acquiring knowledge but by experience and reason. One of its leading advocates was Reimarus of Hamburg, who died in 1768.

REAPING MACHINES.—One was invented by Rev. Patrick Bell in England, 1826. See *Mowers*. **Reciprocity Treaties.**—One was made between Great Britain and the United States, 1854. **Recitative.**—Species of singing used in operas, said to have been first employed at Rome, about 1600. **Reformation, The.**—Began in France about 1177; in England, 1360; in Bohemia, 1405; in Italy, 1498; in Germany, 1511; in Switzerland, 1519; in Denmark, 1521; in Prussia, 1521; in Sweden, 1530; in Ireland, 1535. **REFORMATORY SCHOOLS.**—For juvenile offenders, first established at Mettray, France, 1839. **Refraction of Light.**—Its law discovered by Snellius, about 1624. **Regan's Motor.**—Automatic car motor, invented by Daniel S. Regan of San Francisco, 1893. **Renaissance.**—Term applied to the revival of the classic style of art in the 15th and 16th centuries, under the patronage of the Medici and others. **Rents.**—Said to have been first made payable in money, instead of in kind, about 1135. **Repeating Firearms.**—Invented by Barlow, 1670.

CHRONOLOGY.

CEN.	YR.	
1900	49	100 Anniversary discovery of gold in Calif.
1800	51	First International Exhibition, London.
1700	96	Vaccination discovered by Jenner.
1600	64	The great plague in London.
1500	42-4	Fourth War bet. Chas. V and France.
1400	92	Columbus sails from Palos, Aug. 3.
1300	83	Turkestan conquered by Timour.
1200	94	Alliance bet. Eng., Ger., and Flanders.
1100	92	Shipwreck of Richard I. of England.
1000	84	Rome taken by Henry IV.
900	07	Bavaria ravaged by Hungarians.
800	18	Ireland ravaged by Norwegians.
700	11	Gibraltar taken by the Saracens.
600	10	Mohammed announces himself a prophet.
500	35	Belisarius takes Sicily.
400	81	Clovis elected king of Salic Franks.
300	63	Julian slain in battle in Assyria.
200	73	Palmyra taken by the Romans.
100	04-6	The second Dacian War.
A.D. **O**	**75**	**A.D. COLISEUM AT ROME FOUNDED**
100	00	Agrarian law revived by Saturninus.
200	01	Close of the second Punic War.
300	35	Alexander destroys city of Thebes.
400	08	The Romans defeat the Volsci.
500	80	Money is first coined at Rome.
600	21-10	War bet. Lydians and Milesians.
700	34	The Corsicans control Mediterranean.
800	78	Joash repairs the temple.
900	51	Asa, king of Israel, destroys idolatry.
1000	88	Kingdom of Athens ends in Codrus.
1100	76	Salamis in Cyprus built by Teucer.
1200	84	The Siculi pass from Italy into Sicily.
1300	25	Israelites restored by Ehud.
1400	91	Israelites depart from Egypt.
1500	30	Caleb, son of Jephunneh, is born.
1600	88	Jacob blesseth his sons in Egypt.
1700	02	Joseph rents lands for 1/5 of the produce.
1800	21	Amenophis I. king of all Egypt.
1900	12	Abraham rescues Lot from Assyrians.
2000	58	The kingdom of Assyria begins.
2100	00	Sculpture practiced by Egyptians.
2200	47	Tower of Babel built about this time.
2300	48	Animal meat first granted as food.
2400	50	Authentic Egyptian history begins.
2500	00	Corruptions growing in numbers.
2600		
2700	69	Cainan dies at the age of 910.
2800		
2900	30	Lamech reaches his 180th year.
3000	17	Enoch is the first to never die.
3100		
3200	00	Musical instruments are in use.
3300		
3400	00	People live in cities before this time.
3500		
3600	79	Cainan, son of Enos, is born.
3700		
3800	15	Cain and Abel are together in a field.
3900		
4000		Animals created before man.

REPUBLICS.—Those of ancient Greece, the first being established about 1044 B.C., were the first. **Resonator.**—For facilitating the analysis of compound words, invented by A. B. Bach, 1878. **Respirator.**—See *Fireman*. **Reverend.**—Title given to the clergy since about 1650. **Reviews.**—The *Journal des Scavans*, by Denis de Salo, first published Jan. 5, 1665, is considered the parent of critical journals. **Revivals, Religious.**—Arose in the United States in 1857. **Revolvers.**—Firearms with revolving cylinders, first appeared in England about 1600. **Rhetoric.**—First taught in Latin at Rome, by Phocius Gallus, about 87 B.C.

RHODIUM.—Rare metal, discovered in platinum ore, by Dr. Wallaston, 1804. **Rhubarb.**—A plant first cultivated for its stalks to be used as food, by Mr. Myall in England, about 1820. **Ribbon Looms.**—Their invention is claimed by both the Swiss and the Germans, in the 16th century. **Rice.**—First introduced into the United States, in South Carolina, about 1690. **Rifle.**—First used in European armies during the 17th century. **Rings.**—Used by Egyptians before 1715 B.C. **Rinks** for Roller Skates.—First opened in England, about 1865.

ROAD STEAMERS.—The question of steam traction on common roads is considered to have been solved in 1868, by R. W. Thompson, of Edinburg, adding india-rubber to the tires of the wheels of locomotives. **Roasting Alive.**—An early case is that of Bocchoris, king of Egypt, by order of Sabacon of Ethiopia, 737 B.C. **Rockets.**—Implements of war, invented by Wm. Congreve, about 1803. **Rogation Week.**—The week in which Holy Thursday or Ascension Day occurs, observed since the 3rd century. **Rolling-Mills.**—In metal manufactories, were in use in England in the 17th century.

ROLLER SKATES.—Patented by Mr. Plimpton, an American, 1865. **Roman Era** (A.U.C.).—Commenced April 24, 753 B.C. **Romances.**—The first work of this species of writing was written by Heliodorus, a bishop of Tricca, in Thessaly, about 398 A.D. **Rope-making Machine.**—One was patented by Richard March, 1784. **Rosary.**—A series of 15 large and 150 small beads, invented by Dominic de Guzman, about 1202. **Rosetta Stone.**—Containing inscriptions of three ancient languages, serving as a key to the translation of hieroglyphics, discovered at Rosetta, Egypt, 1799.

DICTIONARY OF DATES.

RUBIDIUM.—Alkaline metal, discovered by Bunsen, about 1861. **Rudder.**—Patented by Lumley, 1862. **Ruffles.**—Became fashionable about 1520. **Ruling Machines.**—For ruling paper, invented by an ingenious Dutchman, resident in London, 1782. **Ruthenium.**—Rare metal, discovered by M. Claus, 1845. **Sabbath.**—Ordained by God, 4004 B.C. See *Lord's Day*. **Sabbath Schools.**—The first "Sabbath School" was founded by Ludwig Hacker between 1740 and 1747, at Ephrata, Lancaster county, Pa.; the schools were broken up by the battle of the Brandywine in 1777. Sunday Schools were instituted in England by Robert Raikes in or about 1782. **SABBATICAL YEAR.**—Instituted by the Jews, 1491 B.C. **Saccharimeter.**—For determining the amount of sugar in solutions, used by Soleil, 1847, in Paris. **Sacrifice.**—Offered to God by Abel, 3875 B.C. Sacrifices to the gods were introduced into Greece by Phoroneus, king of Argos, 1773 B.C. **Saddles.**—Not used by the ancients; appear to have been first used about 385 A. D.; side-saddles first used by women, about 1380, previous to which they rode astride. **Sadducees.**—Jewish sect, said to have been founded by Sadoc, about 200 B.C. **SAFETY LAMP.**—For use in mines, invented by Sir Humphry Davy, 1815. **Sailcloth.**—First made in England, 1590. **Salt.**—One of the earliest salt mines worked is that of Wielitzka, Poland, opened about 1200; made from sea-water in the U.S. during the colonial period. **Saltpetre.**—Compound of nitric acid and potash, its analysis demonstrated by Boyle about 1625. **Sandals.**—See *Shoes*. **Sand-Blast.**—For cutting stone or hard metal by a jet of quartz sand impelled by compressed air or steam, invented by B.C. Tilghman of Philadelphia, about 1871. **Sanhedrim.**—Ancient Jewish council of the highest jurisdiction, said to have been established by Moses, 1490 B.C. **SANSKRIT.**—Language of the Brahmins of India, spoken about 1000 B.C. **Sapphire.**—Precious stone of an azure color, and transparent, known to the ancients before 1491 B.C. **Satire.**—Made its appearance at Rome about 118 B.C. **Saturn.**—One of the planets, was known to the ancients; belts discovered by Huyghens, 1659. **Savings' Banks.**—First instituted at Hamburg, 1778; first in the U.S. at Philadelphia, 1816. **Saw.**—Said to have been invented by Dædalus during the mythological period of Greece. **Saw Mills.**—First erected in Madeira, 1420; in England, 1663.

CHRONOLOGY.

CEN.	YR.	
1900	63	100th Anniversary battle of Gettysburg.
1800	28	First passenger railroad in the U.S.
1700	15	First Jacobite Rebellion in Gr. Britain.
1600	36	Rhode Island settled by Roger Williams.
1500	63-70	War bet. Denmark and Sweden.
1400	72	**Valturius's propelling wheels.**
1300	99	Hindoostan conquered by Timour.
1200	82	Naples separated from Sicily.
1100	80	Servia declares its independence.
1000	40	Danes driven out of Scotland.
900	00	Palermo, Italy, sacked by Saracens.
800	62	Baldwin I., first count of Flanders.
700	16-18	Constantinople besieged by Saracens.
600	16	Alexandria and Egypt conq'd by Persians.
500	33	Victories of Belisarius in Africa.
400	53	Death of Attila, king of the Huns.
300	10	Great famine in England—40,000 die.
200	56	The Allemanni attack Italy.
100	91	Battle of Lyons, France, Feb. 19.
B.C. 0	43	**B.C. ASSASSINATION OF CICERO.**
100	46	Carthage is destroyed, by Scipio.
200	31	The first divorce at Rome.
300	27	Invasion of India by Alexander.
400	43	Censors first created at Rome.
500	22	Darius becomes king of Persia.
600	29	Periander usurps govern't of Corinth.
700	87	**Egyptians control Mediterranean.**
800	69	Phidon coins silver at Egina.
900	07	Elijah slays prophets of Baal.
1000	21	Absalom raises rebellion ag'st his father.
1100	56-16	Philistines enslave Israelites.
1200	83	Peloponnesus settled by Pelops.
1300	74	Troy so named from Tros.
1400	90	**The tabernacle is set up.**
1500	20	Corinth in Greece is founded.
1600	35	Joseph sees 3d generation of his sons.
1700	32	Rachel, wife of Jacob, dies.
1800	46	Shem, the son of Noah, dies.
1900	65	Nimyas kills his mother, Semiramis.
2000	80	The Hyksos conquer Lower Egypt.
2100	98	**The kingdom of Egypt begins.**
2200	01	Chinese monarchy said to be founded.
2300	46	Arphaxad, son of Shem, is born.
2400	50	Some say the Pyramids were begun.
2500	48	Noah reaches his 400th year.
2600	00	Godly and ungodly intermarry.
2700		
2800		Labor in the field is considered a burden.
2900		
3000	00	**The planet Jupiter said to be known.**
3100		
3200	82	**Enoch reaches his 365th year.**
3300		
3400	44	Jared becomes a centimavian.
3500		
3600	09	Mahalaleel, son of Cainan, is born.
3700		
3800	74	Lamech slays a man to his wounding.
3900		
4000	4	**The garden of Eden is planted.**

SCALES.—Invented by Phidon, 869 B.C. **Scarlet.**—A dye or color known in the East in the earliest ages. **Sceptics.**—Sect of philosophers founded by Pyrrho, about 334 B.C. **Sceptre.**—An emblem of royalty, first assumed by Tarquin the elder at Rome, about 468 B.C. **Schoolmen,** or Scholastic Philosophy.—Began in the schools founded by Charlemagne, 800-14. **Screw.**—Known to the ancient Greeks. See *Archimedes Screw*. **Screw-Propeller.**—For moving a vessel through the water; the principle was shown by Hooke, 1681. **SCULPTURE.**—Said to have begun with the Greeks, and more probably with the Egyptians. The tabernacle built in the wilderness, 1491 B.C., is an early instance. **Scythe.**—Used for mowing; used by ancient Romans. **Seals** or **Signets.**—Engraved gems were used as such by the ancient Egyptians, Jews, Greeks, and Assyrians, before 900 B.C. **Sedan Chairs.**—Were first used in England, 1581. **Seismometer.**—For measuring the violence of earthquake shocks; one is described by Robert Mallet, 1858. **Selenium.**—Grayish-white elementary substance, discovered by Berzelius, 1817. **Seleucides,** Era of the.—Said to begin Sept. 1, 312 B.C. **SEPTUAGINT.**—A translation of the Old Testament from Hebrew into Greek, made 277 B.C. **Sewage.**—A test made for, by Heisch, 1810. **Sewers.**—The chief of the celebrated sewers at Rome, *Cloaca Marima*, is said to have been constructed about 588 B.C. **Sewing Machines.**—It is said that Thos. Saint patented one for boots and shoes, in England, 1790. The first really practical sewing machine was the invention of Elias Howe of Cambridge, Mass., about 1841. **Sextant.**—An instrument used like a quadrant, invented by Tycho Brahe, at Augsburg, 1550. **SHAWLS.**—Of oriental origin, introduced into Paris, 1801; first manufactured at Norwich, 1784. **Sheep.**—Abel, the brother of Cain who was born 4003 B.C., was a keeper of sheep; exported from England into Spain, 1467. **Shilling.**—A coin, when made in Anglo-Saxon times was valued at about fivepence; reduced to fourpence about 960. **Ship-building.**—The first ship was brought from Egypt to Greece, by Danaus, 1485 B.C.; first double-decked ship was built by the Tyrians, 786 B.C. **Shirts.**—Said to have been first generally worn in the west of Europe, about 725; woolen shirts were commonly worn in England until about 1253.

DICTIONARY OF DATES.

SHOES.—Coverings for the feet, whether sandals or shoes, were used by the most ancient nations; shoemaking was a distinct trade at Thebes, 1495 B.C. **Shorthand.**—This art is said to have been practiced by the Romans, 100 B.C. The introduction of Isaac Pitman's system, 1837, marks a new era in the art. **Shot.**—Various missiles, as stone, bolts, etc., were used, 1483; chain, grape, and canister shot were invented soon afterward. **Sickles.**—For cutting grain, used by ancient Chinese, Jews, Egyptians, etc.

SIDONIAN ERA.—Commenced Oct. 1, 110 B.C. **Signboards.**—Used by ancient Greeks and Romans. **Silicon.**—Non-metallic element, the mode of procuring it being discovered by Berzelius in 1823. **Silk.**—Said to have been known to the Chinese, 2600 B.C. **Silver.**—A metal known before 2000 B.C. **Skates,** Roller.—Said to have been first used in Paris, 1849. **Slavery.**—First introduced into the United States, 1620; abolished, 1863. **Sleeping Cars.**—First introduced into England, 1873; into the U.S., 1858. **Sling.**—A weapon used before 1406 B.C.

SMELTING.—A process patented by Botfield, 1828. **Soap.**—Said to have been invented by the Gauls before 100 B.C. **Sodium.**—Metal, first obtained by Davy, 1807. **Solar System.**—As now accepted, taught by Pythagoras, about 528 B.C. **Spanish Era.**—Commenced Jan. 1, 38. **Speaking Trumpets.**—One is said to have been used by Alexander, 335 B.C. **Spectacles.**—Supposed to have been invented by Alexander de Spina of Florence, about 1285. **Spectrum,** Solar.—First explained by Newton, 1704. **Spelling-Bees.**—To test the proficiency in correct spelling, originated in the U.S. during the colonial times subsequent to 1650.

SPHERES.—The celestial and terrestrial spheres are said to have been invented by Anaximander, 552 B.C.; armillary sphere by Eratosthenes, about 225 B.C.; planitarium by Archimedes before 212 B.C. **Spinet.**—A keyed instrument, used in the 17th century. **Spinning.**—Arcas, king of Arcadia, taught his subjects the art, about 1500 B.C. **Spinning Wheel.**—Invented at Brunswick, 1530; spinning jenny invented by Hargreaves, 1767. **Spiritualism.**—Manifestations, rappings, etc., said to have begun in America about 1848, and introduced into England, 1851. **Stage Coaches.**—Were used in Europe before 1785.

CHRONOLOGY.

CEN.	YR.	
1900	63	100th Anniversary abolit'n slavery in U.S.
1800	32	South Carolina Nullification Ordinance.
1700	65	The Stamp Act is enacted.
1600	18	Thirty Years' War in Germany begins.
1500	00	Brazil discovered by Portuguese.
1400	**19-36**	**Hussite War in Bohemia.**
1300	95	Timour makes an invasion of Russia.
1200	96	War begins bet. Eng. and Scotland.
1100	39	Kingdom of Portugal established.
1000	81	Wales invaded by William I.
900	04	Constantinople besieged by Russians.
800	32	Sicily conquered by the Saracens.
700	**14**	**Saracens master all of Spain.**
600	28	An academy founded at Canterbury.
500	99	A dreadful pestilence in Africa.
400	96	Christianity received in France.
300	21	Sunday appointed to be observed.
200	72	Ninth persecution of Christians.
100	95	Disputes first begin about Easter.
O	**64**	**A.D. GREAT FIRE IN ROME 6 D'S.**
100	41	The Numantian War begins.
200	40	The first plays acted at Rome.
300	20	Ptolemy carries 100000 Jews to Egypt.
400	56	Nehemiah is called as a prophet.
500	14	Hipparchus is assassinated.
600	51-46	War bet. Romans and Sabines.
700	**47**	**Era of Nabonassar begins.**
800	84	Baal's worshippers destroyed.
900	06	God appears to Elijah at Horeb.
1000	12	Temple of Jerusalem founded.
1100	56	Israelites subject to Philistines.
1200	16	The Second Theban War.
1300	12	Ruth gleaneth in the field of Boaz.
1400	**53**	**Olympic games begin in Greece.**
1500	56	Athens founded by Cecrops of Egypt.
1600	89	Jacob changeth his sons as to his burial.
1700	64	Deluge of Ogyges in Attica.
1800	97	Sodom and Gomorrah destroyed.
1900	21	The call of Abraham is made.
2000	89	Sicyon in Greece is founded.
2100	**11**	**Thebes, Egypt, built by Busiris.**
2200	34	First authentic date in Chaldean history.
2300	48	Death ordered as punishm't for murder.
2400	48	The cubit a measure of length.
2500	00	Mariner's compass said to be known.
2600		
2700	00	Egyptian history said to begin.
2800		
2900	**48**	**Noah, son of Lamech, is born.**
3000		
3100	01	Commencement of Hindoo era.
3200		
3300	82	Jared, aged 162, begets Enoch.
3400		
3500	44	Mahalaleel, aged 65, begets Jared.
3600		
3700	61	Commencement of Jewish era.
3800	75	Cain dwells in the land of Nod.
3900		
4000	**A.**	**The metal gold is first mentioned.**

STARS.—Supposed to have been classed into constellations about 1200 B.C. **Stationers.**—Dealers in books and papers; a company was formed in London long before the invention of printing. **Statues.**—Phidias, whose statue of Jupiter passed for one of the wonders of the world, was the greatest statue among the ancients, 440 B.C. **Steam-Carriage.**—For ordinary roads, invented by the earl of Caithness, about 1860. **Steam-Engine.**—Hero of Alexandria is said to have invented the Æolopile, which possesses the properties of the steam-engine, about 250 B.C.; the steam-engine boiler was invented by the Marquis of Worcester, 1663; the invention perfected by Jas. Watt, 1773.

STEAM-BOAT.—De Jouffroy made a trial with his steam-boat in 1776; Fulton's steam-boat on the Seine, 1803; on the Hudson, 1807. **Steam-Hammer.**—Patented by Nasmyth, 1842. **Steam-Mill.**—First built, 1785. **Steam-Plow.**—Patented by G. Callaway and R. A. Purkes, 1845. **Steam-Ram.**—For naval warfare, invented by Nasmyth, 1836. **Steam-Ship.**—First iron one, 1830. **Steam-Tug.**—First built by Hull in 1736. **Steamer.**—First to cross the Atlantic, 1819.

STEARINE.—That part of fats and oils which is solid at common temperature, its nature first made known by Chevreul, 1823. **Steel.**—Compound of iron and carbon, has been fabricated from the earliest times; first Bessemer steel, 1856. **Steel Pens.**—"Iron pens" are mentioned by Chamberlayne in 1685; steel pens began to come into general use about 1820, but were made long before. **Steelyard.**—Weighing instrument, used by the Romans before 315 B.C. **Stenography.**—See *Short-hand.* **Stereochromy.**—Mode of painting, invented by Von Fuchs, about 1850.

STEREOMETER.—For gauging vessels, invented about 1350. **Stereoscope.**—Optical instrument, invented by Wheatstone, about 1833. **Stereotype.**—For printing, said to have been invented by Wm. Ged of Edinburgh, about 1730. **Stethoscope.**—For ascertaining the action of the heart, invented by Laënnec of Paris, about 1816. **Stirrups.**—First used in the 5th century. **Stockings.**—Silk stockings were first made about 1547, and cotton, about 1589, when the stocking frame was invented; cotton stockings were first made by hand in 1730. **Stocks.**—For punishing offenders, used in England before 1350; in commerce, originated at Venice, about 1173.

DICTIONARY OF DATES.

STOICS.—Disciples of the philosopher Zeno, about 290 B.C. **Storm Warnings.**—First issued in Holland, 1860. **Stoves.**—Those of the ancients concealed the fire; tubes were also used in the middle of the room, with a hole in the roof for the smoke to escape. **Street Railways.**—First opened in New York and London, about 1860. **Strikes.**—First one among the tailors of London, 1834. **Strontium.**—Metal, first obtained by Davy in 1808. **Strychnia.**—Poisonous vegetable alkaloid, discovered by Pelletier and Caventou, 1818. **Stucco Work.**—Was known to the ancients, particularly by the Romans, who excelled in it.

SUEZ CANAL.—The caliph Omar, about 640, opposed cutting the isthmus. The canal was commenced in 1858, and completed 1869. **Sugar.**—Made in East Indies, 325 B.C. **Sugar Cane.**—First cultivated in the U.S., 1751; first sugar mill, 1758. **Suicides.**—The first instances recorded are those of Samson, about 1120 B.C., and Saul, about 1055 B.C. **Sulphur.**—Known from the earliest times. **Sunday.**—Appointed to be observed in 321. **Sunday Schools.**—*See Sabbath Schools.* **Sun Dials.**—*See Dials.* **Surgery.**—First made a separate study in the age of Hippocrates, about 410 B.C.

SURNAMES.—Introduced into England by the Normans, and adopted by the nobility, about 1100. **Surplices.**—First worn by the Jewish priests, and said to have been first used in churches in the 4th century. **Suspension Bridges.**—Very ancient in China; first one opened in England, 1845; one at Niagara Falls, 1852-5. **Swords.**—Were formed of iron taken from a mountain by the Chinese, 1879 B.C. **Tabernacle.**—Constructed by Divine direction, 1491 B.C. **Talking Machines.**—One was exhibited at London, about 1825, that pronounced several sentences with tolerable distinctness; one invented by Prof. Faber of Vienna, 1870.

TALMUD.—The ancient Jewish unwritten or oral law, its origin being coeval with the return from the Babylonish captivity, 536 B.C. **Tanning.**—Of leather from bark. Its invention reaches beyond the dawn of history. **Tantalum.**—A rare metal, discovered by Hatchett, 1801. **Tapestry.**—An art of weaving, having originated among the Saracens about 800. **Tar.**—First made from pit-coal, about 1781. **Tariff.**—A protective tariff was adopted in the U.S., 1828. **Tartaric Acid.**—Said to have been discovered by Scheele, about 1770; a new discovery was made by Liebig, 1859.

CEN.	YR.	CHRONOLOGY.
1900	37	100 Ann'y of accession of Q'n Victoria.
1800	03	Louisiana purchased from France.
1700	99	Bonaparte declared First Consul.
1600	64	New York conquered from Dutch.
1500	49	Kett's insurrection in England.
1400	66	**The second printed book.**
1300	80	The Tartar War in Russia.
1200	50	Stockholm, Sweden, founded.
1100	89	Massacre of the Jews in London.
1000	15	Gregory VII. claims universal sovereignty.
900	76	Bardas usurps Eastern Empire.
800	29	Missionaries sent to Sweden.
700	16	**Charlemagne reduces the Saxons.**
600	06	Court of chancery opened in England.
500	69	The Turks first mentioned in history.
400	64	The Vandals expelled from Sicily.
300	26	First general Council of Nice.
200	35	Sixth persecution of the Christians.
100	66	Rome sends ambassadors to China.
A.D.		
100	72-68	Third Macedonian War.
200	35	Temple of Janus closed after 4.80 yrs.
300	43-41	War bet. Romans and Samnites.
400	86	First Agrarian law made in Rome.
500	12	N.W. part of India conquered by Darius.
600	21	Draco's code of laws to Athenians.
700	19	**The race of kings ends at Corinth.**
800	93	A great famine in Samaria.
900	56	Buddhism introduced into India.
1000	04	Temple of Jerusalem dedicated.
1100	95	Samuel defeats the Philistines.
1200	35	Ægeus throws himself into Ægean Sea.
1300	25	Israelites restored by Ehud.
1400	91	**Moses called into the mountain.**
1500	31	Flight of Moses into Midian.
1600	99	Joseph visits his sick father.
1700	96	Esau marries three wives.
1800	22	Death and burial of Abraham.
1900	17	Abram and Lot separate.
2000	56	Terah, aged 70, begets Abram.
2100	26	**Nahor, aged 29, begets Terah.**
2200	47	The manufacture of brick in Shinar.
2300	48	The rainbow first mentioned.
2400	69	Man's days fixed at 120 years.
2500		
2600	00	Silk said to be made in China.
2700		
2800	14	200 years since Adam's death.
2900		
3000	00	**Some of the planets are known.**
3100		
3200	82	Enoch reaches his 100th year.
3300		
3400	00	Brass and iron are known.
3500		
3600	00	The art of embalming is known.
3700		
3800	75	Lamech takes to himself two wives.
3900		
4000		**Labor ordained for mankind.**

TASIMETER.—*See Micro-tasimeter.* **Taverns.**—Are traced to the 13th century. **Taxes.**—Were levied by Solon, the first Athenian legislator, 540 B.C. **Teetotaler.**—An abstainer from fermented liquors, originated with Richard Turner of Preston, about 1833. **Telegraphs.**—First operated in England in 1835; first in America, between Washington and Baltimore, 1844; first submarine between Dover and Calais, 1851. **Telemeteorographs.**—First exhibited at Paris, 1881. **Telephone.**—Sounds have been conveyed over distended wires at various times since 1667; a short-distance telephone invented by Wheatstone, 1821; an articulating telephone by Bell, 1876.

TELESCOPES.—Their principle was described by Roger Bacon, about 1250; invented by Lipperhey and Jansen, about 1608. **Tellurium.**—Rare metal, discovered by Müller of Reichenstein, 1782. **Telodynamic Transmitter.**—An arrangement of water-wheels, invented by M. Hirn, about 1850. **Temperance Societies.**—The first was organized in Saritoga county, N.Y., 1808. **Temples.**—First erected by the Egyptians to their gods; temple of Jerusalem built by Solomon, 1012 B.C.

TENNIS.—A game fashionable in France before 1660. **Terbium.**—A metal sometimes found with yttrium, which see. **Testament.**—The revised edition of the New Testament was published in 1881. **Thallium.**—Metal, discovered by Wm. Crookes, 1861. **Thanksgivings.**—A special national one was offered in England for the defeat of the Spanish Armada, Sept. 8, 1588; first observed in America, 1621, and on special occasions until under Pres. Lincoln in 1863, the regular observance of a national thanksgiving began.

THEATRES.—That of Bacchus at Athens, 420 B.C., is said to be the first. **Theocracy.**—Government by God, existed among the Jews or Israelites till Saul was made king, about 1095 B.C. **Thermometer.**—Invented by Galileo, before 1597; Fahrenheit's invented about 1726. **Thermophone.**—An instrument for the production of sonorous vibrations, invented by Wiesendanger, about 1878. **Thimbles.**—Said to have been used by several ancient nations, and to be found in the ruins of Herculaneum. **Thoracic Duct.**—First discovered by Eustachius, about 1563. **Thorium.**—A very rare metal, discovered by Berzelius, 1828.

DICTIONARY OF DATES.

THREAD.—First made at Paisley, 1722. **Threshing Machines.**—The flail is the only instrument formerly used, except the *tribulum* used by the Romans; the first machine attempted in modern times was invented by Menzies of Edinburgh, about 1732. **Thumb-Screw.**—Instrument used in the first stages of torture in the Spanish Inquisition, which was established, 382. **Tides.**—Homer speaks of them, about 875 B.C.; Posidonius accounts for them from the motion of the moon, about 79 B.C. **Tiles.**—Said to have been first made in England, 1246.

TIN.—A metal mined in England before 1100 B.C. **Titanium.**—Rare metal, discovered by Gregor, 1791. **Tithes.**—Commanded to be given to the tribe of Levi, 1490 B.C.; given by Abraham to Melchisedek, 1913 B.C. **Tobacco.**—Native of America, introduced into Europe, about 1565. *Tobacco pipes* are said to have been used in Europe for smoking herbs long before the introduction of tobacco; first made of clay, about 1575. **Tolls.**—First paid by vessels passing the Stade on the Elbe, 1109. **Tonometer.**—For tuning instruments, invented by Scheibler of Crefeld, about 1834.

TORPEDOES.—Explosive shells for placing under ships, said to have been invented by D. Bushnell, an American, 1777. **Towers.**—That of Babel is the first recorded, built in the plains of Shinar, 2247 B.C.; Tower of the Winds at Athens, 550 B.C. **Traction Engines.**—See *Road Steamers*. **Tragedy.**—First acted at Athens by Thespis, about 535 B.C. **Trajan's Column.**—In Rome, erected by the Roman senate and people in 114. **Tram Cars.**—Run in Glasgow, 1877. **Translation** to Heaven.—Enoch at the age of 365, 3017 B.C.; the prophet Elijah, 896 B.C. **Treadmill.**—For prison discipline, invented by Sir Wm. Cubit, who was born, 1785, died, 1861.

TRIALS.—Alfred the Great is said to have begun trial by jury, about 890, but there is good evidence of such trials before his time. **Trigonometry.**—Invented by the Greek astronomers of Alexandria. **Trinity Sunday.**—The Sunday following Whitsunday, or the 8th Sunday after Easter, observed since 828. **Triremes.**—Galleys with three banks of oars, said to have been invented by the Corinthians, 784 B.C. **Troy Weight.** First adopted at Troyes, France, about 1095. **Trumpet.**—Its invention is ascribed to both the Egyptians and Tyrrhenians, before 1000 B.C.

CHRONOLOGY.

CEN.	YR.	
1900	13	100 Ann'ty Perry's victory on L. Erie.
1800	71	The great fire in Chicago.
1700	59	Canada taken from the French.
1600	00	East India Company first chartered.
1500	20	Popery abolished in Sweden.
1400	10	**Painting in oil colors invented.**
1300	88	Bombs invented at Venloo.
1200	67	The Paris police established.
1100	56	The city of Moscow founded.
1000	70	Feudal law introduced into Engl'd.
900	87	Third race of kings begin in France.
800	97	War bet. Greeks and Bulgarians.
700	51	**Constantine sends 1st organ to France.**
600	47	The Saracens conquer Africa.
500	59	The Heptarchy begins in England.
400	76	The kingdom of Italy begins.
300	28	Capital removed from Rome to Constantinople
200	58	30 tyrants harass Roman empire.
100	14	Trajan erects his column at Rome.
B.C. 0	8	**B.C. AUGUSTUS CORRECTS THE CALENDAR.**
100	47	A census of Rome, pop. 320,000.
200	12	Syracuse is taken by Marcellus.
300	19	Samnites subdued by Romans.
400	38	Parthenon completed under Pericles.
500	25	Egypt becomes a Persian province.
600	30	Cyrene is built about this date.
700	47	**Romans and Sabines unite.**
800	97	Ahab seduced by false prophets.
900	01	Syrians defeated by Israelites.
1000	93	David is annointed king.
1100	82	Kingdom of the Latins begins.
1200	63	The Argonautic expedition occurs.
1300	28	Isthmian games first introduced.
1400	85	**The first ship appears in Greece.**
1500	71	Pharaoh orders Israelitish children drown'd.
1600	89	Jacob predicts advent of Messiah.
1700	15	Joseph interprets Pharaoh's dreams.
1800	97	Circumcision is instituted.
1900	98	Wheaten bread first made by Chinese.
2000	89	Kingdom of Sicyon established.
2100	15	**Zoroaster founds the Magi.**
2200	18	Birth of Nimrod, the mighty hunter.
2300	48	Noah removes covering of the ark.
2400	48	Pitch used in making the ark.
2500	00	Chinese empire is said to begin.
2600		
2700	00	Egyptian history said to begin.
2800		
2900	62	**Seth dies at the age of 912.**
3000		
3100	30	Birth of Lamech, son of Methuselah
3200		
3300	17	Methuselah is born.
3400		
3500	00	Cities are built before this date.
3600		
3700	69	Seth reaches his 105th year.
3800	15	The harp and organ are in use.
3900		
4000	4	**The first rain is mentioned.**

TRUSS.—A transverse spring truss for ruptures was patented by Robert Brand, 1771. **Tubular Bridges.**—The Britannia Tubular Bridge was constructed in 1846-50. **Tuileries.**—The imperial palace of France, commenced, 1564. **Tungsten.**—Brittle metal, first obtained by Luyart, 1786. **Tunnage** and Poundage.—Were the origin of "customs" in England, first levied about 1346. **Tunnels.**—For drainage are ancient; a railway tunnel was constructed at Liverpool, 1829. **Turkeys** and Guinea Fowls.—First introduced into Europe, about 1523. Turkeys are native of America, and guineas of Africa.

TURNPIKES.—First constructed in England, 1663. **Type-Composing** Machines.—See *Composing Machines*. **Type-Founding.**—Gutenberg invented *cut* metal type, about 1452; first type cast in England, 1720. **Type-Writers.**—One constructed for the blind in 1855, by M. Foucault of France; several were invented by Wheatstone, who died in 1875; the Remington was invented about 1873. **Tyre.** Era of.—Commenced Oct. 19, 125 B.C. **Umbrellas.**—First used in England, about 1718. **Undulatory Theory** of Light.—Supposes a progressive wave-like motion between the eye and the luminous body, said to have been first suggested by F. Grimaldi, about 1665. **UNIFORMS.**—Military uniforms were first used in France "in a regular manner," about 1668. **Union Jack.**—Original flag of England, was incorporated with the banner of Scotland, 1606. **United Kingdom.**—The British realm was so called Jan. 1, 1801. **United States of America.**—First so called by the colonial congress, Monday, Sep. 9, 1776. **Universal Suffrage.**—Was adopted by the French in their constitution of 1791. **Universities.**—The most ancient in Europe are: Cambridge, 635; Paris, 792; Oxford, 879; Bologna, 1116. The oldest in America are: Harvard, 1638; William and Mary, 1693; Yale, 1701.

UNIVERSITY BOAT RACES.—Began with Oxford and Cambridge, 1829. **Uranium.**—Brittle grey metal, discovered by Klaproth, 1789, in the mineral pitch-blende. **Uranus.**—A planet with eight satellites, discovered by William Herschel, March 13, 1781. **Usury.**—Was permitted from a stranger to the Jews, but forbidden from their brethren, 1491 B.C. **Utilitarianism.**—Philosophy which proposes the attainment of the greatest happiness to the greatest number, ascribed to Priestley, died 1804.

DICTIONARY OF DATES.

VACCINATION.—Discovered by Dr. Edward Jenner, about 1798. **Vacuum.**—Patented by Bentham, 1795. **Valentine's Day.**—Feb. 14, established in honor of Valentine, who is said to have been a bishop, and suffered martyrdom about 271. **Vanadium.**—Metal, discovered by Sefstrom, 1830. **Vandals.**—A Germanic race, attacked the Roman empire in the 3rd century. **Variable Stars.**—Said to have been first observed in a small star of Cetus, by Daniel Fabricius, Aug. 13, 1596. **Vatican.**—At Rome, became the residence of the pope in 1377.

VEDAS.—Sacred books of the Hindoos, probably written about 1000 B.C. **Velocipedes.**—One was invented by Blanchard of France, about 1779; under various names, as *bicycles, tricycles*, etc., these machines have been made, and came into general use among wheelmen about 1861. **Velvet.**—Mentioned by Joinville, 1272; previous to 1685 its manufacture was confined to Italian cities. **Ventilators.**—Invented by Dr. Hales, about 1741. **Ventriloquism.**—Speaking so that the voice appears to come from a different place from that of utterance, was first described about 712 B.C. **Venus.**—A planet known to the ancients.

VESPERS, Sicilian.—A term given to the massacre of the French, in Sicily, March 30, 1282. **Vesta.**—A planet, discovered by Dr. Olbers of Bremen, March 29, 1807. **Vestals.**—Virgin priestesses, said to have been first appointed by Numa, 710 B.C. **Vesuvius.**—By its eruption, the cities of Herculaneum and Pompeii, including more than 200000 inhabitants, were destroyed, Aug. 24, 79 A.D. **Vice.**—An instrument said to have been invented by Archytas of Tarentum, about 420 B.C. **Vikings.**—Scandinavian chiefs, Swedes, Norsemen, and Danes, of the 4th century.

VINE.—Was planted by Noah, 2347 B.C.; a colony of vine-dressers settled in the southern part of France, about 600 B.C. **Vinegar.**—Boaz, a rich citizen of Bethlehem, provided vinegar as a beverage for his reapers, 1312 B.C.; the ancients had several kinds, which they used for drink. **Viol and Violin.**—The viol of the middle ages became the violin, which is mentioned as early as 1200. **Violet Blue.**—Was obtained from aniline, 1863. **Virginals.**—A keyed instrument, used first in the 16th century. **Viscount.**—The first viscount in England created by patent, was John, lord Beaumont, created by Henry VI., Feb. 10, 1440.

CHRONOLOGY.

CEN.	YR.	
1900	15	100th Anniversary of battle of New Orleans.
1800	65	President Lincoln assassinated.
1700	79	Captain Cook was killed.
1600	34	Maryland settled by Catholics.
1500	11	Cuba conquered by the Spaniards.
1400	15	John Huss condemned and executed.
1300	94	The Jews banished from France.
1200	72	The academy of Florence founded.
1100	88	The third Crusade takes place.
1000	96	St. George becomes patron saint of England.
900	23	The Moors defeated in Spain.
800	74	The Danes invade Scotland.
700	62	Burials permitted in towns.
600	80	Sixth general council of Constantinople.
500	90	Pestilence in Italy and France.
400	52	Venice founded about this time.
300	57	Julian defeats six German kings.
200	81	Carausius proclaimed emp'r in Britain.
100	88	Roman Capitol destroyed by lightning.
B.C. 0	**67**	**A.D. PETER AND PAUL EXECUTED.**
100	09	Teutons and Cimbri attack Rom. Emp.
200	34	The Sardinian war begins.
300	31	Alexander defeats Darius at Arbela.
400	41	A great famine at Rome.
500	16	Babylon is taken by Darius.
600	24	Draco draws up a code of laws.
700	01	Tarentum built about this date.
800	70	Phœnicia conquered by Assyrians.
900	18	Hiel the Bethelite builds Jericho.
1000	44	Athens abolishes royalty.
1100	41	Samson marries a Philistine.
1200	31	Amazons conquered by Theseus.
1300	56	Eleusinian mysteries instituted.
1400	45	Canaan divided among the tribes.
1500	71	Pharaoh's daughter finds Moses.
1600	35	Israelites afflicted by task-masters.
1700	08	Jacob comforted by God at Beersheba.
1800	91	Invention of letters by Syphoas.
1900	10	Birth of Ishmael, son of Abram.
2000	56	Terah reaches his 100th year.
2100	28	Egypt divided into four kingdoms.
2200	18	Monarchical government introduced.
2300	47	Noah plants vineyard and makes wine.
2400	09	Corn said to be cultivated by Ceres.
2500	48	Noah reaches his 400th year.
2600		
2700	00	A civilization growing up in Egypt.
2800		
2900	00	Astronomy studied before this.
3000		
3100	00	Several modern occupations known.
3200		
3300	82	Birth of Enoch, son of Jared.
3400		
3500	00	A Theocratic form of government.
3600		
3700	69	Avengement of Cain and Lamech.
3800	13	Cain kills the ground in vain.
3900		
4000	4	Man placed in the garden of Eden.

VOLTAIC PILE or BATTERY.—Was constructed by Galvani, 1791, but the principle was discovered by Volta of Como, who was born, 1745. **Voting.**—The Australian system of voting was introduced into the United States, 1888. **Voyages.**—By order of Pharaoh-Necho of Egypt, some Phœnician pilots sailed around the Cape of Good Hope, 604 B.C.; first voyage around the world by Magellan, 1519. **Vulcanized Rubber.**—Formed by combining india rubber with sulphur, patented by C. Goodyear, 1839.

VULGATE.—A term applied to the Latin version of the Bible, authorized by the council of Trent, 1546, and attributed to St. Jerome, about 384. **Wagons.**—Were rare until about 1800. **Wagnerism.**—"Music of the future," a combination of music and poetry, introduced by R. Wagner in London, about 1873. **Waits.**—The night minstrels who perform a short time before Christmas, organized in England, about 1400. **Wakes.**—English equivalents of the ecclesiastical *Vigils*, known before 1285. **Waldenses.**—A sect inhabiting Cottian Alps, founded about 1170.

WALL-PAPER.—First used in Holland and Spain, about 1555. **Walls.**—The stupendous wall in China was completed, about 298 B.C.; one was erected in Britain by the Romans, 79 to 85 A.D. **Walnut-Tree.**—The largest walnut tree on record stood near Welwyn, England, which was felled in 1627, it covering a space, when standing, of 2299 square yards. Black walnut was introduced into Europe from North America before 1629. **Waltz.**—Introduced into England from Germany, about 1813. **War.**—The first one on record is that of Osymandyas of Egypt, who passed into Asia and conquered Bactria, 2100 B.C.

WAR GAME OF.—Invented by a civilian in Germany, about 1815. **War-Ships.**—Important improvements introduced by Seppings, 1814; first of a new class of screw, gun vessels used in the Russian war, 1854; first battle between iron ships was that of the Monitor and Merrimac in the American Civil War, 1861-5. **Washing Machines.**—Several different ones invented in the U.S., before 1862. **Watches.**—Said to have been first invented at Nuremberg, 1477. **Water-Clock.**—Invented by Nasica at Rome, 159 B.C. **Water-Mills.**—For grinding corn, invented at Rome, about 555.

DICTIONARY OF DATES.

WAX.—Used for candles before the 12th century. **Weather Charts, Daily.**—First issued in 1872. **Weather-Cocks.**—First mentioned at Athens, 50 B.C. **Weaving.**—Said to be the most ancient of arts. **Wedding-Rings.**—Were used by the ancients. **Week.**—Space of seven days, supposed to have been first used among the ancient Jews. **Weights** and Measures.—These and the stamping of gold and silver money, are attributed to Pheidon, tyrant of Argos, 895 B.C. **Welding.**—Of iron, is ancient; by electricity, suggested by Joule of Manchester, Eng., 1856; of copper, discovered at Verona, Pa., by James Burns, 1886. **WELLS.**—Were dug by Abraham, 1892 B.C. **Westminster Abbey.**—Said to have been founded by Sebert, king of Essex, 611. **Whale-Fishery.**—Said to have been first carried on by the Norwegians in the 9th century. **Wheat.**—The Chinese claim to have cultivated it before 2000 B.C. **Whisky.**—First made about the 12th century. **Whist.**—Game at cards, became general about 1600. **Widows.**—The Jewish law required a man's brother to marry his widow, 1490 B.C. **Wig.**—See *Peruke*. **WILD-FIRE.**—Invented by a Greek in 663. **Wills** and Testaments.—Of high antiquity, Jacob having made a will, 1689 B.C.; Solon introduced them at Athens, 578 B.C. **Windmills.**—Said to have been invented either by the ancient Romans, or Saracens; first known in Spain, France, and Germany, 1299; wind saw-mills were invented by a Dutchman in 1633. **Windows.**—There were glass windows in Pompeii, 79 A.D.; glazed windows were made fashionable in some European countries, about 650; glass windows first used in England, 1177. **Wine.**—Noah planted a vineyard, and made wine, 2347 B.C.; said to have been made from rice by the Chinese, 1998 B.C. **WIRE.**—The invention of drawing wire is ascribed to Rodolph of Nuremberg, about 1410. **Witchcraft.**—Known among the Jews before 1491 B.C. **Witnesses.**—Two or more witnesses were required by the laws of Moses, 1451 B.C. **Woodcuts.**—Are ancient in China; introduced into Europe, about 1400. **Wood-Paper.**—Invented by Desgrand, 1838. **Woolen Cloth.**—Made by the ancients before 1451 B.C. **Working Men's** Organizations.—Have been numerous since the great Exhibition of 1851. **Worship.**—The first worship mentioned is that of Abel, 3872 B.C., recorded in the fourth chap. of Gen.

CHRONOLOGY.

CEN.	YR.	
1900	75	200th Anniversary bat. Bunker Hill.
1800	20	Missouri Compromise adopted.
1700	93	Cotton-gin invented by Ely Whitney.
1600	66	The great fire in London.
1500	31	Post offices established in England.
1400	**59**	**Engraving and etching invented.**
1300	48	University of Prague founded.
1200	90	The Jews banished from England.
1100	81	The laws of England digested.
1000	98	Order of St. Benedict instituted.
900	68	The Normans ravage Spain.
800	70	The Danes ravage England.
700	**55**	**Temporal dominion of the pope begins.**
600	11	Westminster Abbey founded.
500	75	Civil wars in France.
400	95	Third Saxon invasion of Britain.
300	63	Julian endeavors to rebuild the Temple.
200	74	Temple of the sun built at Rome.
100	39	Justin Martyr writes a apology for Christ.
A.D. 0	**33**	**A.D. CHRIST IS CRUCIFIED.**
100	70	Paper is invented in China.
200	29	War between Romans and Illyrians.
300	12	Seleucus captures Babylon.
400	48	Height of Athenian prosperity.
500	35	First tragedy acted at Athens.
600	11	Second Messenian war ends.
700	**54**	**Micah is called as a prophet.**
800	93	Elisha causes iron to swim.
900	00	The Kingdom of Assyria ends.
1000	23	Absalom rebels and is killed by Joab.
1100	00	Kingdom of Pharaohs at its height.
1200	25	Theban war of the seven heroes.
1300	44	The kingdom of Argos divided.
1400	**53**	**Moses dies at the age of 110.**
1500	56	Kingdom of Athens found by Cecrops.
1600	35	Coffins used for the dead.
1700	15	Joseph finds granaries in Egypt.
1800	92	Wells are dug by Abraham.
1900	00	The Pelasgi are in Greece.
2000	17	Semiramis, queen of Assyria.
2100	**88**	**Misraim builds cities in Egypt.**
2200	00	His dynasty founded in China.
2300	00	A race of kings reign in India.
2400	50	Pyramids said to have been begun.
2500		
2600	00	Cultivation of silk began in China.
2700		
2800	17	Methuselah reaches his 500th year.
2900		
3000	**14**	**Death of Adam, aged 930.**
3100		
3200	04	Adam reaches his 800th year.
3300		
3400	38	Seth reaches his 400th year.
3500		
3600	69	Enos reaches his 100th year.
3700		
3800	75	Harps invented by Jubal.
3900		
4000	**4**	**Man expelled from the garden of Eden.**

WORSTED.—Spun wool, invented at Worsted, Eng., before 1340. **Writing.**—Pictures are considered to be the first essay towards writing; Athotes is said to have thus written a history of Egypt, 2112 B.C.; writing is said to have been taught to the Latins by Europa, daughter of Agenor, a king of Phœnicia, 1494 B.C.; Cadmus, the founder of Cadmea, is said to have introduced the Phœnician letters into Greece, 1493 B.C. **Xylotechnographica.**—A process for staining wood various colors, invented by A.F. Brophy, about 1875. **YACHTS.**—Light vessels for pleasure or for racing, club formed in London, 1838. **Yard.**—Measure of 3 feet, declared by Henry I. of England to be the length of his arm, about 1115. **Yeast.**—A substance causing fermentation, discovered to be a vegetable cell or fungus, by Schwann, 1836. **Yellow Fever.**—An American pestilence, first made its appearance at Philadelphia, 1699. **Yellow-Stone** National Park.—Organized by Congress, 1872. **Yoke.**—As a type of servitude, and making prisoners pass under it, was practiced by the Samnites towards the Romans, 321 B.C. This disgrace was afterwards inflicted by the Romans upon their vanquished. **YTTRIUM.**—A rare metal, the earth *yttria* being discovered by Prof. Gadolin of Sweden, 1794, and the metal by Wöhler, 1828. It is of a dark grey color, and brittle. **Zanzaleens.**—A sect denying the efficacy of water baptism, and claiming the necessity of being baptized with fire, and the application of a red-hot iron. The sect rose in Syria in 535. **Zend-Avesta.**—Ancient sacred books of the Parsees. The age of the books is much disputed, some claiming that they date from before 1200 B.C. **Zinc.**—The ore of zinc, calamine and spelter, was known to the ancient Greeks and Chinese. **ZIRCONIUM.**—Metal, obtained by Berzelius, 1824. **Zodiac.**—Its twelve signs were named and located by Anaximander, about 560 B.C. The Greeks and Arabians borrowed the zodiac from the Hindoos. The zodiacal light was so named by Cassini, 1683. **Zollverein.**—The name given to the German commercial union, projected by Prussia, 1818. **Zoology.**—A science treating of animal life, founded by Aristotle, 322–284 B.C. Linnæus, in 1741, divided the animal kingdom into six classes:—*Mammalia*, those suckling their young; *Aves*, birds; *Amphibia*, frogs, etc.; *Pisces*, fishes; *Insecta*, insects; *Vermes*, worms.

A DICTIONARY OF PARLIAMENTARY LAWS AND RULES

AS OBSERVED IN CONGRESS AND PUBLIC BODIES.

Gesture No. 1. Gesture No. 2.

SUMMARY OF PARLIAMENTARY PROCEDURE

Embracing about three hundred points of order. Follow each motion given in the alphabetic list at the left to its respective references given at the right.

Adjourn, motion to	1	7	11	16	20	24	28
Adjourn, motion to fix time to which to	2	7	12	15	20	24	28
Amend, motion to	3	7	12	15	20	24	28
Amendment, motion to amend an	3	7	11	15	20	24	28
Amend rules, motion to	3	7	12	15	21	24	28
Appeal, relating to indecorum, etc.	1	7	11	15	20	24	29
Appeal, from speaker's decision generally	3	7	11	15	20	24	29
Call to order	1	7	11	15	20	25	29
Close debate, motion to	1	7	12	15	21	24	28
Commit, motion to	3	8	12	15	20	24	28
Committee, motion that they do now rise	1	7	11	16	20	24	28
Consideration of question, objections to	1	7	11	15	21	25	29
Debate, motion to close	1	7	12	15	21	24	28
Debate, motion to extend limits on	1	7	12	15	20	24	28
Debate, motion to limit	1	7	12	15	21	24	28
Fix time to which to adjourn, motion to	2	7	12	15	20	24	28
Indecorum, appeal relating to	1	7	11	15	20	24	29
Indecorum, leave to continue speaking after	1	7	11	15	20	24	28
Lie on the table, motion that ------ do	1	7	11	17	20	24	28
Limit debate, motion to	1	7	12	15	21	24	28
Motion, motion to withdraw a	1	7	11	15	20	24	28
Objection to consideration of a question	1	7	11	15	21	25	29
Order, call to	1	7	11	15	20	25	29
Orders of the day, motion for	1	7	11	15	20	25	29
Postpone to a certain time, motion to	4	7	12	15	20	24	28
Postpone indefinitely, motion to	3	8	11	15	20	24	28
Previous question, motion for	1	7	11	15	21	24	28
Priority of business, questions touching	1	7	12	15	20	24	28
Privilege, questions of	3	7	12	15	20	24	28
Question, debatable, motion to reconsider	3	8	11	16	20	24	30
Question, objection to consideration of	1	7	11	15	21	25	29
Question, to take up out of its proper order	1	7	11	15	21	24	28
Question, undebatable, motion to reconsider	1	7	11	16	20	24	30
Question whether subject shall be discussed	1	7	11	15	21	25	29
Questions, forms in which they may be put	6	10	14	19	23	27	32
Questions of precedence of questions	5	9	13	18	22	26	31
Reading papers	1	7	11	15	20	24	28
Reconsider a debatable question, motion to	3	8	11	18	20	24	30
Reconsider an undebatable question, motion to	1	7	11	16	20	24	30
Refer a question, motion to	3	8	12	15	20	24	28
Rise, motion that committee do now	1	7	11	16	20	24	28
Rules, motion to suspend	1	7	11	16	21	24	28
Special order, motion to make subject a	3	7	12	15	21	24	28
Substitute, in the nature of amendment	3	7	12	15	20	24	28
Suspend rules, motion to	1	7	11	16	21	24	28
Table, motion to take from	1	7	11	17	20	24	28
Withdraw a motion, motion to	1	7	11	15	20	24	28

The intricacies of Parliamentary Law, as practiced in this country, are seen in the above summary at a glance.

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1. The question is undebatable, but sometimes remarks are tacitly allowed.
2. The question is undebatable when another question is before the assembly.
3. The question is debatable.
4. Limited debate is allowed on the question only on the propriety of postponement.
5. Fixing the time to which an adjournment may be made, ranks **first**
6. A motion to amend, ranks **eighth.**
7. The question does not allow reference to the main question.
8. The question opens the main question to debate.
9. To adjourn, when unqualified, ranks **second.**
10. A motion to postpone indefinitely, ranks **ninth.**
11. The question cannot be amended.
12. The question may be amended.
13. A motion for the orders of the day, ranks **third**
14. On motion to strike out words: "Shall the words stand part of the motion," unless a majority sustain the words, they are struck out
15. The question can be reconsidered.
16. The question cannot be reconsidered. [ed
17. An affirmative vote on this question cannot be reconsider-
18. A motion to lie on the table, ranks **fourth.**
19. On motion for the previous question, "Shall the main question be now put?" This, if carried, ends debate.
20. A majority suffices to determine the question.
21. Two-thirds vote, unless special rules are enacted.
22. A motion for the previous question, ranks **fifth.**
23. Appealing from the Chair's decision: "Shall the decision be sustained as the ruling of the house?" The chair is generally sustained.
24. The motion must be seconded.
25. The motion does not require to be seconded.
26. A motion to postpone definitely, ranks **sixth.**
27. A motion for Orders of the Day, if carried, supersedes intervening motions.
28. The question is not in order when another has the floor.
29. The question is in order at any time.
30. The question may be moved and recorded when another has the floor; not, however, putting aside the business before the assembly. The motion must be made by one who voted on the prevailing side, and on the same day as the original vote was taken.
31. A motion to commit, ranks **seventh.**
32. An objection to the question: "Shall the question be considered?" may be made by any member before debate has commenced, but not after.

Gesture No. 3.

ADJOURN.—To put off from one day to another. A motion to adjourn, except "to fix the time to which to adjourn," takes precedence of all others. It is neither debatable, amendable, reconsiderable, nor has it any subsidiary motion applied to it. Qualification in any way changes its privileged character to that of any other principal motion. When there has been any intervening business, a motion to adjourn may be repeated. When a committee is ready to make its report, instead of adjourning, a motion is made "to rise." If it does not close the session, any business interrupted by an adjournment is the first in order at the next meeting. If it close the session, there being more than one regular session each year, any unfinished business is taken up first in order at the next session; provided that in a body elected for a definite time, the term of office of none of its members expires during the period of adjournment. If it close the session, there being not more than one regular session each year, and the term of office of any of the officers expires before the next regular session, all unfinished business is ended. When it is desired to close a meeting in order to prevent an assembly from being kept in session an unreasonably long time, there should be a rule limiting the time that the floor can be occupied by any one member at one time, after the expiration of which, any member who gets the floor should move "to adjourn." After seconding, the Chairman instantly puts the question, and if decided affirmatively, he says, "The motion is carried; this assembly stands adjourned sine die," or as the case may be. (See Fix Time).

AMENDMENT.—Any alteration which is made or proposed to be made in a motion, bill, by-laws, etc., by adding, changing, substituting or omitting. A motion to amend takes precedence of nothing except the question it is proposed to amend. It can be amended itself, but an amendment to an amendment cannot be amended. It yields to any subsidiary, incidental, or privileged question. For an amendment to be inconsistent with another, or to conflict with the original motion, it must have a direct bearing upon it. An amendment may be: (1) "to strike out certain words and insert others." This motion is indivisible, and if lost, an other may be made; (2) "to add or insert" certain words or paragraphs; (3) "to substitute" another motion on the same subject for the one pending; (4) "to strike out" certain words or paragraphs. If this motion fail, it does not preclude an amendment, or a motion "to strike out and insert." (5) "to divide the question" into two or more questions so as to secure a separate vote on each point. When a paragraph is once inserted, it cannot be struck out or amended except by adding to it; also when words are inserted in a resolution, they cannot be struck out, except by a motion to strike out the paragraph, or such part as shall make the question an entirely different one from that of inserting the particular words. It can be brought up again only by moving a reconsideration. The following motions cannot be amended: (1) to reconsider; (2) to lie on the table; (3) for the previous question; (4) to adjourn (if unqualified); (5) for the orders of the day; (6) to postpone indefinitely; (7) all incidental questions; (8) an amendment of an amendment. An amendment to a constitution, by-laws, or rules of order, requires a previous notice, and a two-thirds vote for its adoption. (See Rules of Order, By-Laws, Constitution, and Committee).

ANNOUNCING THE VOTE.—See Voting.

APPEAL.—To call upon another, or to the house, to decide a question controverted, to vindicate one's rights, or to corroborate a statement. If a member object to the decision of the presiding officer relative to questions of order, he says, "I appeal from the decision of the Chair," when, if seconded, the Chairman says, "Shall the decision of the Chair stand as the judgment of the assembly?" If there be a majority or a tie vote, the decision of the Chair is sustained. An appeal cannot be amended, and yields to privileged questions; when relating to indecorum, violation of the rules of speaking, to the priority of business, or if made during the pending of the previous question, it cannot be debated. If debatable the presiding officer may state the reasons for his decision, not leaving the chair while doing so. Members are allowed to speak but once on the question. A vote on an appeal may be reconsidered, but is not in order while another appeal is pending. (See Point of Order).

APPLY.—To put or adjust one thing to another; as, in case a motion can have no subsidiary motion applied to it, the fact is so stated; for example, a particular motion, as a motion to adjourn, cannot be laid on the table, postponed, committed or amended.

ASSEMBLY.—A number of persons collected together, usually for some common purpose, as for deliberation, legislation, religious worship, or social entertainment. When used in the forms of motions, it should be replaced by the special term used to designate the particular assembly, as society, convention, board, etc. (See Deliberative Assembly, and Organization).

AYES AND NOES.—Ayes are affirmative votes, and noes, negative; also the same as yeas and nays. (See Voting).

BALLOT.—A printed or written ticket used in voting. It was originally a ball used for secret voting.

BLANKS.—Empty spaces to be filled in with some special writing. In filling blanks the longest time or the largest sum proposed must be first put to the question. Resolutions are sometimes conveniently amended by creating blanks by moving to strike out certain numbers or times. Any number of members may propose numbers to fill a blank without the formality of a motion. In balloting blank votes are not to be counted.

BOARD.—A number of persons elected or appointed, to sit in council for the management or direction of some public or private business or trust. For the order of the reports of boards of trustees, managers, etc., see Order of Business, and Quorum.

BUSINESS.—Anything that demands attention, or matter under consideration. In introducing business, it is either brought before the assembly by a motion, or by the presentation of a communication; except in receiving the reports of committees, or in the regular routine of business. When a motion for the introduction of business has been seconded, it is then stated by the presiding officer, after which it may be debated; if the motion be in writing, it is handed to the Chairman, and read before it is debated. Suggestions or alterations may, however, be made before the question is stated by the Chairman, thereby saving much time, but debate is not allowed. Until a motion has been stated by the Chair, its originator may either modify it, or withdraw it entirely; but not after, without the consent of the assembly. The one who seconded the motion may withdraw his second after the mover modifies his motion. Having been stated by the presiding officer, a question is in the possession of the assembly for debate; the mover not being allowed to either modify or withdraw it, except by consent of the assembly, or by moving an amendment. (See Obtaining the Floor, and Division of Question, also Order of Business, Priority of Business, and Unfinished Business).

BY-LAWS.—Local or restricted laws made for application to particular

Gesture No. 4.

circumstances. In general, by-laws contain all standing rules of a society, of such importance that they should not be placed within the power of one meeting to modify. (See Constitution and Rules of Order).

CALL OF THE HOUSE.—In parliamentary practice, a special order by the Speaker for each member to attend in his place. The object is to compel the attendance of absent members, it being allowable only in assemblies having the power to compel the attendance of absentees. In the absence of a quorum, a small number (one-fifth of the members elect in Congress) can order a call of the house. Until a quorum is obtained, the members ordering the call should not be permitted to adjourn, or to dispense with further proceedings in the call. A rule should be adopted providing for this. In the absence of a quorum, a call of the house takes precedence of everything except the motion to adjourn; if a quorum is present, a motion for a call ranks with questions of privilege, a majority vote being required for its adoption. After a call is ordered, no motion is in order, except one relating to the call itself, or a motion to adjourn, no recess being allowed. All proceedings in a call are ended by adjourning, except in case a quorum is present, the members already arrested may be ordered to present their excuses at an adjourned meeting. The proceedings in a call are: (1) the clerk calls the roll of members in alphabetic order, noting the absentees; (2) he calls over again the names of the absentees, when excuses may be made; (3) the doors are locked, that no one may leave, and an order adopted "That the Sergeant-at-Arms take into custody, and bring to the bar of the House, such of its members as are absent without the leave of the House;" (4) a warrant is signed by the presiding officer, attested by the clerk, with a list of absentees attached, and given to the Sergeant-at-Arms, who immediately proceeds to arrest the absentees; (5) appearing with the arrested members, he proceeds to the Chairman's desk, followed by the arrested members, then making his return; (6) the presiding officer arraigns each arrested member separately, asking what excuse he has to offer for being absent from the sittings of the assembly without its leave; (7) the member states his excuse, when a motion is made for his discharge from custody and readmitted to his seat either without the payment of a fine, or after the fine has been paid; until which the member can neither vote nor be recognized by the Chair.

CALL TO ORDER.—The presiding officer should enforce the orders and rules of the assembly, without delay or debate. Also each member noticing a violation of a rule, is expected to insist upon its enforcement. Rising from his seat and addressing the presiding officer, he says, "Mr. Chairman, I rise to a point of order." Immediately taking his seat, he is requested by the Chairman to state his point of order, which he does, after which he again resumes his seat. Upon decision of the point by the Chair, if no appeal be taken, the first member resumes his speech. If his remarks are decided to be improper, and any one objects, he cannot continue speaking without a vote of the assembly. If it is a case of improper language used in debate, a member may say, "I call the gentleman to order;" after which the Chairman decides as before. If the Chair be unable to decide a point of order, he may ask the advice of members, who respond without rising, or he may submit it to the assembly.

CHAIRMAN.—The person that presides over a public or private assembly. For his duties, see Presiding Officer.

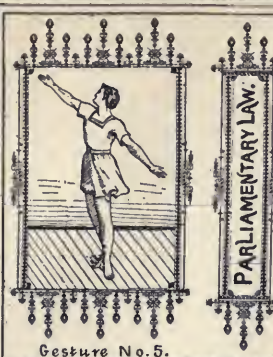
CHANGE OF VOTE.—For the privilege of changing one's vote before the result is announced, see Voting.

CLASSIFICATION OF MOTIONS.—See Motions. See also Privileged, Principal, Subsidiary, and Incidental Motions.

CLERK.—An officer employed to write orders, letters, dispatches, public and private papers, records, and transact other business. (See Secretary).

COMMIT.—To refer a subject to a committee. In order to secure a more deliberate consideration of a matter, to gain further information upon it, or to improve the form in which it is presented, a motion is usually made to refer the subject to a committee. The committee's report may also be recommitted. A motion to commit takes precedence of the motions to amend or to indefinitely postpone; it also yields to incidental or privileged questions, to a motion to lie on the table, to postpone to a certain day, or for the previous question. It is debatable, and may be amended by altering the committee, or giving it instructions. This committee is to be the regular one whose duties embrace the subject, if there be such; otherwise the motion should be to refer to a special committee, whose character should be named in the motion; or the number and kind of committee need not be decided till after it has been voted to refer the subject to a committee. A part of the subject may be referred to a committee, or different parts to different committees. If the committee be instructed as to the duties assigned, such instructions must be strictly followed. In the absence of instructions, the committee has full power to report in any manner consistent with the received forms of parliamentary proceedings. If the motion does not designate the method of appointing a committee, and there is no standing rule on the subject, the Chairman inquires how the committee shall be appointed, and this is usually decided informally. Sometimes the Chair "appoints," or the committee is "nominated" either by the Chair or by members of the assembly (no member nominating more than one), when they are voted upon together. (See Committee).

COMMITTEE.—One or more persons either appointed or elected, to whom any matter or business is referred. For the method of appointing a committee, see last part of preceding article, also Resolutions. When a committee is properly selected, its action usually decides that of the assembly. If a committee be intended for action it should be small, and composed of those in favor of the proposed action; if for investigation or deliberation, it should be larger, representing all parties in the assembly, that its opinion may carry as great weight as possible. The chairman of a committee is the first member named, and it is his duty to call the committee together and preside at their meetings. If for any reason he fails to call together the committee, it is their duty to assemble at the call of any two of their members. A quorum is necessary for the committee to act. Papers referred to a committee must not be defaced, their amendments being written on a separate sheet. Amendments to a paper originated by the committee, must be incorporated therein. In making amendments each paragraph is considered separately, and when the entire paper has been thus considered, it is open to amendments, by striking out clauses or paragraphs, inserting new ones, or by substituting an entirely new paper. The report being adopted, it is written out, commencing thus: "The committee to which was referred (state matter), beg leave to submit the following report;" or "Your committee appointed to (state matter), would respectfully report" etc. The report closes thus: "All of which is respectfully submitted," followed by all the members' signatures who concurred in the report, or sometimes only that of the chairman, who usually presents it to the assembly. If the



Gesture No. 5.

minority submit a report, it should commence thus: "The undersigned, a minority of the committee appointed," etc. It is usual to allow the minority to present their report after that of the majority has been read, though it cannot be acted upon unless there be a motion made to substitute it for the report of the committee. A motion to recommit, when adopted, revives a committee, after it has been discharged following the reading of their report. They are discharged without a motion. A committee (except a committee of the whole) may appoint a sub-committee. When ready to make their report, a motion is made for the committee to "rise" (equivalent to the motion to adjourn), and that the chairman (or some member more familiar with the report) make its report to the assembly. In case of disorderly conduct, a committee has no power to punish its members, but must report the facts to the assembly. (See Standing Committee, Select Committee, Committee of the Whole, and Reports of Committees).

COMMITTE OF THE WHOLE.—A committee consisting of the entire assembly. The object of such a committee is to consider a subject which is not desired to refer to a committee, as when a subject-matter has not been properly considered and formulated for definite action. When it is desired to consider a question at once, a motion is made, "That the assembly do now resolve itself into a committee of the whole, to take under consideration," etc. (See Commit, for its order of precedence). The motion adopted, the Chairman calls another member to the chair, taking his place as a member of the committee. As the committee cannot adjourn, the only motions in order are to amend and adopt, and that the committee "rise and report;" neither can it order the "yeas and nays." To close or limit debate, the assembly must vote that the debate in committee shall cease at a certain time. If there be no prescribed limit, any member may speak as often and as long as he may get the floor. The committee can neither refer the question to another committee, nor alter the text of any resolution referred to it; but in case the resolution originates in the committee, all amendments are incorporated in it. When the subject has been duly considered, or an adjournment is desired, a motion is made that "the committee rise and report," etc. The motion being adopted, the presiding officer takes the chair and the chairman of the committee, having resumed his place in the assembly, rises and informs the Chairman that "the committee have gone through the business referred to them, and that he is ready to make the report when the assembly is ready to receive it." The clerk makes a memorandum of the proceedings for the use of the committee, but not recording them on the minutes. Should the committee become too disorderly, the presiding officer may take the chair, and declare the committee dissolved. A quorum is the same as that for the assembly, and without which, it can only rise and report the fact to the assembly, which would then have to adjourn.

CONSIDERATION.—Continuous and careful thought; the result of deliberation, or of attention and examination. (See Objection to Consideration of a Question).

CONSTITUTION.—The fundamental, organic law or principles of government of an organized body of men; usually, but not necessarily, embodied in written documents; also the documents themselves. When forming a constitution and by-laws for an organization of any kind, it would be well to procure copies of those adopted by similar organizations and make one of these the basis. (The form given under Business Forms in this Manual will serve as a general model). After the committee having charge of the preparation of the constitution and by-laws have finished their work, a motion is made "that the committee rise, and that the chairman report the constitution and by-laws to the assembly." If this be adopted, the constitution and by-laws are written out, and a brief report is made by the committee. The constitution should be made very difficult to amend, a previous notice being required, and a two-thirds or a three-fourths vote for its adoption. (See By-Laws, Rules of Order, and Standing Rules).

CONVENTION.—A meeting or assembly of persons, as of representatives or delegates, to accomplish some specific object. (See Assembly, Organization, and Permanent Society).

CREDENTIALS.—Testimonials to show that a person is entitled to credit, or has a right to exercise official power; as, a certificate that one has been elected a delegate. In the organization of a convention where it becomes necessary to know who are properly members of the assembly and entitled to vote, before the permanent organization is effected, a temporary organization is made by the election of a chairman and secretary pro tem.; when the chairman announces, "The next business in order is the appointment of a committee on credentials, which is done by some one moving "That a committee (usually of three) be appointed on the credentials of members. In voting to accept the report of the committee, only those reported by the committee as having proper credentials can vote. The committee should also report doubtful or contested cases, making recommendations, which the assembly may either postpone, adopt, or reject. (See Organization).

DEBATE.—Argument for and against; as, the debates in Parliament or in Congress. Before a subject is open for debate, it must be brought before the house by a motion and statement by the Chair. (See Business). Before a member speaks in debate, he must rise and respectfully address the Chair; as, "Mr. Chairman," (or President or Moderator, as the case may be), after which the Chairman announces his name. By courtesy, the member upon whose motion a subject is brought before the assembly, is first entitled to the floor. If it be the report of a committee, the member who presents the report; he is also entitled to close the debate. If a member report a measure from a committee, he is invariably entitled to close the debate. With this exception, no member can speak more than twice on the same question (once on questions of order); nor longer than ten minutes at a time, without leave of the assembly. Until every member choosing to speak has spoken, no member may speak a second time. All remarks must be confined to the question before the assembly, and all personalities or reflections upon any one's motives be avoided. If great freedom is wanted in debate, the question may be considered informally, or if the assembly be large, go into committee of the whole. If it be desired to limit debate more, or to close it, it may be done by a two-thirds vote. There is a distinction between debate and making suggestions or asking questions, and it should always be kept in view. For the suppression of debate on a subject, see Previous Question. All debate on a question may be closed by any of the following motions, which are undebatable, and, except to lie on the table, requires a two-thirds vote for their adoption: (1) To lie on the Table, which, when adopted, puts the question to the table, from which it can only be removed by a majority vote. (2) The Previous Question, which, when adopted, cuts off debate by bringing the assem-

Gesture No. 6.

bly to vote on the pending question only. If the pending motion is an amendment, or a motion to commit, it also applies to the question to be amended or committed, or to an amendment of an amendment. (3) An Objection to the Consideration of a Question (only when the question is first introduced), which, if adopted, throws the subject out of the assembly for that session. (4) To adopt an order limiting debate upon a special subject, or to close debate upon the subject at a stated time, when all pending questions are put to vote without further debate. These two measures apply to a pending amendment, or an amendment to an amendment. This being voted upon, the original question is left open to debate and amendment.

DECORUM IN DEBATE.—In debate a member must not reflect upon any act of the assembly, and confine his remarks to the question pending. He should avoid personalities, and when referring to another member, if possible, avoid using his name; instead referring to him as "the member who spoke last," or as the case may be; never in any way arraigning the motives of a member. The character or consequences of a measure may be condemned in strong terms, keeping in mind that it is the measure and not the man, that is the subject of debate. Always refer to the officers of the assembly by their official titles, and when the Chairman rises to speak, the member speaking must resume his seat till the Chairman has been heard. In objecting to improper words, either the member objecting or the clerk should write them out, that they may be read to the member who is accused; in case of denial, the assembly decides by a vote whether or not they are his words. If he cannot justify the use of the words, or refuses to properly apologize, it is the duty of the assembly to act. If a member be called to order, he must sit until the question of order is decided. If his remarks are decided to be improper, he cannot continue speaking, if any one object, without the consent of the assembly expressed by a vote. Before the assembly proceeds to deliberate upon a case, if the disorderly words be of a personal nature, both parties to the personality should retire, it being a general rule that when any subject relating to one's self is under debate, he should be absent. Unless the person objecting to the words is involved in the case, he need not retire.

DELEGATE.—One who is sent and empowered to act for another. For the organization of a meeting of delegates, see Convention and Organization.

DECISION.—The act of settling or determining. As a rule, in most questions and elections, the majority of votes of those who are present constitutes the will of the body. A special provision is necessary in case a majority of the whole membership is required. (See Voting.)

DELIBERATIVE ASSEMBLY.—An assembly having the right or power to deliberate upon or to discuss questions brought before it. For the rights of such an assembly to punish its members, see Legal Rights of Assemblies.

DIVISION.—In an assembly the separation of the members into two parties for the purpose of voting on opposite sides of a question. (See Voting.)

DIVISION OF QUESTION.—The separation of a question into two or more questions, as the mover may specify, for the purpose of getting a separate vote on any particular point or points. Sometimes the enemies of a measure seek to amend it in such a way as to divide its friends, and thus defeat it. To divide a question is really to amend it, and subject to the same rules. After a question is divided, each separate question is a proper one for the assembly to act upon, even if none of the others were adopted. A motion to "strike out certain words and insert others," is indivisible, it being strictly one proposition; a motion "to commit with instructions," is also indivisible, because if the motion to commit should fail, the motion to instruct would be improper, since there would be no committee. (See Amendment.)

DUTIES OF OFFICERS.—See under the title of each officer in its proper order.

ECCLESIASTICAL TRIBUNALS.—Religious courts or forums for the administration of justice among religious bodies or their members. These bodies are governed in their deliberations by the same rules of order that are used in other deliberative bodies. The presiding officer is designated "Moderator." In case of division or other trouble among the members of a local church, the Supreme Court of the United States has laid down the broad principle that, when a local church is but a part of a larger and more general organization or denomination, the court will accept the decision of the highest ecclesiastical tribunal to which the case has been carried within that general church organization as final, and will not inquire into the justice or injustice of its decrees as between the parties before it. The courts will recognize the highest judiciary recognized by any denomination.

EJECTMENT.—It is a right of every deliberative assembly to determine who may be present during its session, and after deciding, by a vote or by a rule, that any person shall not remain in the room, it is the duty of the Chairman to enforce the rule or order, employing force if necessary. Members may be detailed to remove the person, but in using harsher treatment than is necessary, the members make themselves liable to action.

EXPULSION.—Summarily removing from membership. For the expulsion of members, see Trial of Members.

ELECTION.—The act of choosing a person to fill an office, or to membership in a society. The usual methods are by ballot, uplifted hands, or viva voce. For the election of officers, see Organization and Voting.

FIXING THE TIME TO WHICH TO ADJOURN.—This motion takes precedence of all others. It is undebatable when another question is before the assembly, and is in order even after the vote has been taken to adjourn, provided the result of the vote has not yet been announced. When no other question is before the assembly, it is debatable, standing as any other principal motion, and can be amended by altering the time. Its form is, "When this assembly adjourns, it adjourns to meet at such a time." When it is desired to have an adjourned meeting of the assembly, it is best to make this motion sometime before the close, specifying the time.

FLOOR.—To obtain the floor in order to address the assembly on any question, it is necessary that the member rise and address the presiding officer by his title; as, "Mr. Chairman," or as the case may be, who will then announce the member's name. When two or more persons rise to speak at the same time, the Chairman decides who is first by calling the name or otherwise indicating the person. If readiness of discernment and promptness of decision on the part of the Chairman do not enable him to justly decide between the two claimants, an appeal to the assembly may be had. Having once obtained the floor, a member cannot be interrupted by calls for the question, or by a motion to adjourn, or for any purpose, with the following exceptions: (1) by an objection to

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the consideration of the question; (2) by a call to order; (3) by a call for the orders of the day; (4) to have entered on the minutes a motion to reconsider; (5) by a question of privilege that requires immediate action. (See Introduction of Business).

FORMS.—For forms of motions, questions, reports, etc., see the particular subject in its proper order.

HONORARY MEMBER.—A member holding a title or place without rendering service or receiving reward. Distinguished past presiding officers, veteran members of the meeting, persons who have won honorable distinction in the cause that the meeting assembles to consider, and other notabilities whose presence will lend dignity to the rostrum, the Chairman may appropriately call to the stand, to occupy a seat beside him, all of which tends to give respectability, dignity, and influence to the proceedings of the meeting.

HOUSE.—An audience or assembly of hearers, as at a lecture, theater, society, etc. (See Call of the House).

IMPROPER LANGUAGE.—Any words or expressions unsuited, unbecoming, or unfitted to the circumstances. (See Decorum in Debate).

INCIDENTAL QUESTIONS.—Those arising out of other questions. In consequence of their origin, they take precedence of those from which they arise, and are to be decided before them. They cannot be amended, and yield to privileged questions. They cannot be debated, except an appeal. They are: (1) Suspension of the rules; (2) Objection to the consideration of a question; (3) Question of order, or appeal; (4) The reading of papers; (5) Leave to withdraw a motion.

INDEFINITE POSTPONEMENT.—A postponement without setting a day for further consideration. If this question be decided in the affirmative, the motion cannot be renewed; if in the negative, it has no effect, the question being still in the possession of the assembly. It takes precedence of nothing except the principal question, and yields to incidental, privileged, or subsidiary motions, except to amend. When the previous question is ordered while this motion is pending, it applies only to it without affecting the main question. It opens to debate the entire question it is proposed to postpone; it cannot be amended, and entirely removes the question from before the assembly for that session. (See Postponement).

INFORMAL CONSIDERATION.—Consideration without regard to official, conventional, prescribed, or customary forms or rules; as, acting as if in the committee of the whole. Instead of going into committee of the whole, especially in small assemblies, the question may at first be considered "informally," and afterwards, "formally." In informal actions, a member is at liberty to speak as often and as long each time as permitted by the assembly. Acting informally upon resolutions, the assembly can only amend and adopt them; the Chairman announcing, without a motion, that "the assembly, acting informally, has had the subject under consideration, and has made certain amendments which he will report." The Chairman's report to the assembly of the informal action should be entered on the minutes, but the memorandum of the proceedings kept by the clerk should not be entered. It not being necessary to move that the committee rise at the close of an informal action, the Chairman retains his seat; but the adoption of such motions as to commit, to adjourn, the previous question, or any motion except to amend or adopt, puts an end to the informal consideration.

INTRODUCTION OF BUSINESS.—When other than routine business, or orders of the day, is to be brought before the assembly, it is introduced by a motion, which, after being seconded, is stated by the Chairman. When a member wishes to bring a subject before the assembly, unless very simple, he should write it out in the form of a motion, introducing the resolution with the word "Resolved." Rising and addressing the Chairman, he says, "I move the adoption of the following resolution," which he reads and then hands to the Chairman. After seconding, the Chairman says, "It has been moved and seconded that the following resolution be adopted," he then reading the resolution; after which the merits of the resolution are open to discussion. At the close of the discussion the Chairman asks, "Are you ready for the question?" If no one rises to speak, he says, "The question is on the adoption of the resolution which you have heard read; as many as are in favor of its adoption will say aye." After the ayes have voted, he says, "As many as are opposed to its adoption will say no." After the vote has been taken, the Chairman announces the result by stating that the motion is carried, or lost, as the case may be. (See Business and Floor).

JOURNAL.—The record of daily proceedings, kept by the clerk. In legislative bodies this record is called as above, but in most other assemblies it is called the minutes, which see.

LEGAL RIGHTS.—Those rights of deliberative assemblies, created by, permitted by, or in conformity with the laws of the country. The courts recognize deliberative bodies as having the inherent right to make and enforce their own laws, and punish their members for offenses, the extreme penalty being expulsion. A permanent society, for self-protection, has a right to give public notice that a person has ceased to be a member of that society. Publishing the charges against the expelled member gives him ground for recovering damages from the society in a suit for libel, notwithstanding the truth of the charges. (See Ecclesiastical Tribunals).

LIE ON THE TABLE.—To postpone a subject in such a way that it can be taken up again at any time, or to suppress a question, when a majority vote can not be obtained to take it from the table during any session. This motion is not debatable, cannot be amended, can have no subsidiary motion applied to it, nor can an affirmative vote on it be reconsidered. It takes precedence of all other subsidiary questions, and yields to privileged or incidental questions. It removes the subject, and everything that adheres to it, from consideration till the assembly vote to take it from the table, a motion being necessary to call it before the assembly. The following are exceptions: (1) An amendment to the minutes being laid on the table, the minutes are not carried with it; (2) If a motion to reconsider a question be laid on the table, the original question is left where it was before the reconsideration was moved; (3) If an appeal be laid on the table, the decision of the Chair is sustained, but the original subject is not tabled. Whenever there is no possibility of obtaining a majority vote for taking up a question during the remainder of the session, the quickest way to suppress it is to move "that the question lie on the table;" which, being undebatable, the majority may instantly place on the table, from which it cannot be taken without their consent.

MAIN QUESTION.—A Main or Principal Question or Motion, is a motion to bring before the assembly, for its consideration, any particular subject. It yields to all incidental, privileged, and subsidiary questions, takes precedence of nothing, and cannot be made when any other question is before the assembly. (See Motion).

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MAJORITY.—The number by which one aggregate exceeds all other aggregates with which it is contrasted; as, the number by which the votes for a successful candidate exceed those for all other candidates. (See Plurality, Two-thirds, Quorum, and Voting).

MEETING.—An assembling together of the members of a deliberative body for any length of time, and during which there is no separation of the members by an adjournment. If a recess be taken for only a few minutes, this does not terminate the "meeting." In ordinary practice a meeting is closed by moving simply "to adjourn. (See Session). For method of conducting a meeting, see Assembly, Convention, Business, Introduction of Business, and Order of Business.

MEMBER.—One of the persons composing a society, association, etc. Before taking his seat as a member of a permanent society, it is usually required that the person be initiated by the payment of a certain fee, and making an affirmation similar to the following: "I do hereby solemnly promise, that I will observe and strictly obey all the laws, rules and regulations set down in the Constitution of this Society; and do further declare that I entertain no ill-will toward any member, and will endeavor to promote the welfare of this Society." A member is not supposed to be present during a debate about himself, nor is he to vote on questions personal to himself. During the meetings of an assembly, the members are supposed to stand upon a plane of exact equality. If possessed of a high degree of intellectual culture, or gifted with fluency of speech and readiness in debate—the fact is clearly shown in the proceedings of the assembly; wealth and eminence in position being lost sight of for the time being. All standing on the same level, it becomes each member to exhibit such deportment, as will, in the highest degree, promote the harmony and efficacy of the meeting. (See Decorum in Debate, Trial of Members, and Floor).

MINORITY.—The smaller number, as opposed to the majority, or larger number. For the report of the minority, see Committee.

MINUTES.—An outline of the proceedings of a meeting or society. (See Journal). The minutes should contain, (1) A statement of the kind of meeting, whether "regular," "special," "adjourned regular," or "adjourned special;" (2) Name of the assembly; (3) Date and place of the meeting, unless the place is always the same; (4) A statement of the fact of the presence of the regular chairman and clerk, or in their absence the names of their substitutes; (5) A statement as to whether the minutes of the previous meeting were approved; (6) A record of the proceedings of the meeting. The following form illustrates the introductory part: "At a regular meeting of the Hibernian Literary Society, held on the 23rd day of November, 19..., at the Society Auditorium, the President in the chair, the minutes were read by the clerk and approved." In the absence of the clerk, insert after the words "in the chair" the following: "The clerk being absent, _____ was appointed clerk pro tem. The minutes were then read and approved." In the absence of the reading of the minutes, say, "The reading of the minutes was dispensed with." The minutes should be signed by the clerk who acts for that meeting, and when they are to be published, the presiding officer should also sign them. The clerk should not under any circumstances criticise in the minutes, either favorably or otherwise, anything said or done in the meeting. In ordinary society meetings, the duty of the clerk is mainly to record what was done by the assembly; but if the minutes are to be published, it is often of far more interest to know what was said by the leading speakers than to know what routine business was done. In such cases the secretary should have at least one assistant. Every principal motion, whether adopted or rejected; the results of voting; and when voting by yeas and nays, a list of the names of those voting on each side, should all be entered in the minutes; also brief summaries of reports that have been agreed to, except where it contains resolutions, in which case the resolutions should be entered in full as adopted by the assembly. The proceedings of the committee of the whole, or while acting informally, should not be entered on the minutes. When the next meeting will not occur for a long period, the minutes should be read and approved before adjournment. The clerk should have in his possession a list of all standing committees, also such select committees as are in existence at the time. Previous to each meeting, the clerk should make out an order of business for the use of the Chairman, and when a committee has been appointed, he should hand the names of the committee, and all papers referred to it, to the chairman of the committee. (See Secretary).

MODERATOR.—An officer who presides over an assembly to preserve order, propose questions, regulate the proceedings, and declare the votes. The term is particularly applicable to the chairman of ecclesiastical assemblies. (See Presiding Officer).

MODIFICATION.—Any particular form or manner, or any slight change in form. After a question or motion is in the possession of the assembly, its mover cannot modify or withdraw it, if any one object, except by obtaining leave from the assembly, or by moving an amendment. (See Amendment).

MOTION.—A proposal or suggestion made at a meeting or assembly, looking to action or progress. If a proposition be made in such form that the assembly is ready to act upon it, the question may be put at once, and the result determined; but as it is often desirable to dispose of it in some other way, for this purpose various motions have come into use, which can be made while a question is being considered, and for the time supercede it. (For the order of precedence of motions see Summary of Parliamentary Procedure at the beginning of this subject). For the details of each motion, see it in its proper order. The following is a list of motions, classified according to their object: **I.** Rules and Orders.—(1) Orders of the Day. (2) Appeal. (3) Questions of Order. (4) Suspension of the Rules. (5) Special Orders. **II.** To Suppress Debate.—(1) Order Limiting or Closing Debate. (2) The Previous Question. **III.** To Suppress the Question.—(1) To Lie on the Table. (2) To Postpone Indefinitely. (3) To Object to the Consideration of the Question. **IV.** To Defer Action. (1) To Lie on the Table. (2) To Postpone to a Certain Time. **V.** To Amend or Modify.—(1) To Commit. (2) To Amend. **VI.** To Close a Meeting.—(1) To Fix the Time to which to Adjourn. (2) To Adjourn. **VII.** To Consider a Question a Second Time.—To Reconsider. **VIII.** Miscellaneous.—(1) Questions of Privilege. (2) Reading of Papers. (3) Withdrawal of a Motion. The following is a general classification of motions: **I.** Principal or Main Question or Motion. **II.** Subsidiary or Secondary Motions.—(1) To Lie on the Table. (2) To Amend. (3) To Postpone Indefinitely. (4) To Postpone to a Certain Day. (5) To Commit. (6) The Previous Question. **III.** Incidental Questions or Motions. (1) Suspension of the Rules. (2) To Appeal, or Questions of Order. (3) To

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Object to the Consideration of any Question. (4) The Reading of Papers. (5) Leave to Withdraw a Motion. **IV.** Privileged Questions. (1) To Call for the Orders of the Day. (2) To Fix the Time to which to Adjourn. (3) To Adjourn. (4) Questions relating to the Rights and Privileges of the Assembly or of any of its Members. When required by the presiding officer, all principal motions, amendments, and instructions to committees, should be in writing. For a list of motions that cannot be amended, see Amendment; and for those which cannot be debated, see Undebatable Questions, and Debate. The following motions open to discussion the entire merits of the main question: (1) To Reconsider a debatable question. (2) To Postpone Indefinitely. (3) To Commit. The following motions require a two-thirds vote for their adoption, while all others require but a majority. Every motion in this list has the effect to suspend or change some rule or custom of deliberative bodies: (1) To Suspend the Rules. (2) To Make a Special Order. (3) To Amend the Rules (requires also a previous notice). (4) To Close or Limit Debate. (5) The Previous Question. (6) To Take up a Question out of its Proper Order. (7) To Object to the Consideration of a Question. (See Renewal).

NEW BUSINESS.—Any business usually coming in under the head of communications or petitions. When a member makes a statement relating to some matter, or presents a communication or petition in writing from some person or persons, such communication should be signed by the petitioner or petitioners. The member who presents a petition should be so informed of the character of his petition, as to be able to make a plain statement of the nature of its contents, and whether it is worthy of consideration or not. Either the person presenting the petition, or some other member, should move that the communication be received, and referred to the committee having charge of that class of business, at the same time giving the paper to the secretary. If immediate action on the communication be desirable, the person presenting it should offer a motion to that effect.

NOMINATION.—The act of proposing by name, or offering the name of, as a candidate for an office or place. Any number of nominations may be made (unless a motion is adopted to the contrary), the Chairman announcing each name as he hears it, and the Secretary making a memorandum of the same. It is usual to vote upon the names in the order in which they have been announced, until one receives a vote sufficient for an election. (See Voting and Organization).

NUMBER.—To give or apply a number or numbers to; as, to assign a place in a series by order of number. When the assembly is large and the session to continue but for a short time, it is often found to be more convenient to designate the members by number than by name. When inserting or striking out paragraphs, the marginal numbers prefixed to them, should be corrected, if necessary, by the clerk, without any motion to amend.

OBJECTION.—The act of presenting something in opposition; as, an adverse reason or argument. When any principal motion has been first introduced, and before it has been debated, an objection can be made to the consideration of it. It does not require a second, may be made while another member has the floor, and the Chairman may put the question, if he deems it necessary, upon his own responsibility. The purpose of this motion, "to object to the consideration of a question," is to enable the assembly to avoid all questions which are thought to be contentious, unprofitable, or irrelevant. The question can neither be amended, debated, or have any other subsidiary motion applied to it; and when decided in the negative by a two-thirds vote, the whole matter is dismissed for that session.

OBTAINING THE FLOOR.—For the method of obtaining the floor before speaking, and the right to hold it, see Floor.

OFFICER.—A person lawfully invested with an office, and authorized to perform some public or private duty. Before entering upon the duties of office, each officer is usually installed or inaugurated by making an affirmation similar in form to the following: "I do hereby solemnly promise that I will faithfully discharge the duties of my office to the best of my knowledge and ability." For the duties of officers, see the following in their proper order: President, Vice-President, Chairman, Moderator, Presiding Officer, Sergeant-at-Arms, Secretary, Clerk, Minutes, and Treasurer.

ORDER.—Conformity with law or decorum; the customary mode of procedure, or established system; as, in the conduct of debate or the transaction of business. (See Appeal, Call to Order, Decorum in Debate, and Rules of Order).

ORDER OF BUSINESS.—The method or customary mode of procedure in deliberative assemblies. In order to expedite the proceedings, and insure due consideration to all measures, a definite order of business should be adopted. The following is a convenient order for most assemblies: (1) Call to order. (2) Calling of the roll, if there be any. (3) Chaplain's exercise, if there be any. (4) Reading the minutes of the previous meeting, and their approval. (5) Reports of standing committees. (6) Reports of select committees. (7) Unfinished business, left over from last meeting. (8) New business. If a subject has been made a "special order" for the day, it is taken up immediately after the reading of the minutes. The "orders of the day" come in with unfinished business. When it is desired to transact business out of order, it is necessary to suspend the rules, to do which a two-thirds vote is required. In considering a report or proposition containing several paragraphs or sections, the proper method is to begin with the first and take them in order. This, however, may be varied, if the assembly be of such a size as to make it practicable; and in general, in a series of resolutions with a preamble, consider the resolutions first, and then recur to the preamble. The clerk first reads the entire series of resolutions, or other proposition of distinct parts; after which the presiding officer reads the parts separately, when the amendments should be made. Finally, the question is put on the adoption of the whole, amended or not, as the case may be. When a report has

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come back from a committee, whether amended or not, the reading is made by the clerk, followed by the second reading by the presiding officer, amendments to amendments of the committee only being admitted at this stage. Other amendments are then made, if desired, followed by the final vote on adoption. It is a common practice to receive the report of the committee when presented, or after it has been amended, and the proposition becomes one of the assembly upon the vote for adoption, and not a report of a committee. In case the committee report back a new draft, it may be accepted as a substitute for the original, and so considered; or it may be treated as an amendment, and then amended when necessary, the vote on the report being as on an amendment, followed by a vote on the main question as amended. By "suspending the rules," or by general consent, a report can be at once adopted without following any of the ordinary routine.

ORDERS OF THE DAY.—Matters that have been assigned to a certain day or hour for consideration. A motion for the orders of the day, takes precedence over all other questions or motions pending, or which may arise, except those to adjourn, to reconsider, and of privileges. It is not debatable, cannot be amended, requires no second, and is in order when another has the floor. The orders of the day are either "special" or "general," the former taking precedence of the latter. General orders cannot interfere with the established rules of the assembly, but special orders suspend all the rules of the assembly that interfere with their consideration at the time specified, it requiring a two-thirds vote to make any question a special order. One special order cannot be made to interfere with another special order, but may with a general order. When one or more subjects have been assigned to a particular day or hour, they cannot be considered before that time, except by a two-thirds vote. If not taken up at the time specified, the order falls to the ground, unless it be assigned, by a majority vote, to some other time. An affirmative vote on a call for the orders of the day removes the pending question from before the assembly, but a negative vote dispenses with the orders only so far as they interfere with the question then under consideration. The form of this question is, "Will the assembly now proceed to the orders of the day?" or, "Shall the orders of the day be taken up?" A formal vote, except by unanimous consent, is necessary to proceed originally to the orders of the day.

ORDER OF DELIBERATION.—The order in which the distinct parts of a proposition or series of resolutions are taken up and considered. The proper order is to begin with the first and take them in regular succession, unless otherwise provided. (See Order of Business).

ORDER OF PRECEDENCE.—See Precedence.

ORGANIZATION.—The act of arranging in a systematic way so as to enable the different parts, as the officers, to co-operate together. To organize an occasional or mass meeting, some member of the assembly steps forward and says: "The meeting will please come to order; I move that Mr. ____ ____ act as Chairman of this meeting;" after the motion is seconded, he says: "It has been moved and seconded that Mr. ____ ____ act as Chairman of this meeting; those in favor of the motion will say aye;" "those opposed will say no." If the affirmative win, he says, "The motion is carried; Mr. ____ ____ will take the chair. If the motion be lost, another nomination is necessary, when the procedure is as before. With the Chairman elected, the selection of a Secretary is next in order. Nominations are made, and the voting proceeds as in the election of the Chairman. When there are several names proposed, they are voted upon in the order of nomination until one receives a majority. After his election, the Secretary is to take his seat near the Chairman, and proceed to make a record as described under Minutes. If more officers are required than a chairman and secretary, or if it be desired to select them with more deliberation, it is customary to consider the above-described organization temporary, and refer the matter of permanent organization to a committee, usually with power to make nominations for the offices, upon whose report the meeting organizes, either in conformity thereto, or with modifications, which may amount to an entire rejection of the report. When the members of the assembly are representatives of others, it is necessary to determine who are duly chosen members. This is done by the appointment of a committee on credentials. (See Credentials). The organization thus far completed, the Chairman asks, "What is the further pleasure of the meeting?" If the meeting be called together to consider a special object, it is customary at this stage of the proceedings for some one to offer a series of resolutions previously prepared, or else to move the appointment of a committee to prepare resolutions upon the subject. If a committee be appointed to draft resolutions, the number being decided upon, the Chair may appoint, or the assembly may nominate them, and then vote upon their appointment. After the committee are appointed, they should retire at once and agree upon a report, which should be in writing, as described under Committee. During the committee's absence, other business may be attended to, or the time may be occupied in hearing addresses. When the committee return, the chairman of the committee says: "The committee appointed to draft resolutions are prepared to report." After reading which, he hands them to the presiding officer. A member then moves the "adoption" or "acceptance" of the report. If it is not desired immediately to adopt the resolutions, they may be debated, modified, or postponed. The committee is dissolved without any action of the assembly as soon as the report is handed to the presiding officer. For permanent organization see Permanent Society.

PAPERS AND DOCUMENTS.—A member has the right to have a paper or document read at least once when it has been laid before the assembly for action, and a demand for the same should be followed by the Clerk's reading, unless the paper be foreign to the question, when a vote or general

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consent is necessary. In a debate, if a reading meets objection, a question on the same must be made and decided as other incidental questions. Papers relating to a proposition are usually included in a reference to a committee if such is made. All papers belonging to an assembly, not specially under the charge of some other officer, are in the custody of the secretary.

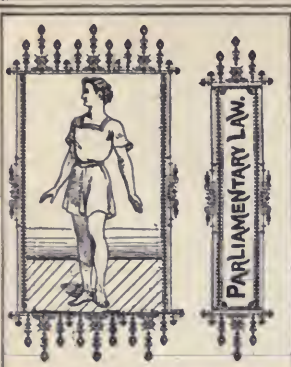
PARLIAMENTARY LAW.—Originally the customs and rules of conducting business in the English Parliament; but now, the rules and regulations for conducting business in legislative bodies and other deliberative assemblies. Like the laws of the Nation, and those of the different States, the rules and regulations of various deliberative bodies differ according to circumstances, and what the separate assemblies have found best to adopt; yet there is a great degree of unity, in that they all have a common origin; viz., the Rules of Congress, and these in turn originated from the English Parliament. It is the practice for any particular legislative body to have a Legislative Manual of its own, and the exact method of conducting business is to be obtained therefrom. The vast number of deliberative bodies, as political, literary, religious, benevolent, scientific, etc., are governed by the common parliamentary law, except where it conflicts with their own special rules. Whenever any important parliamentary question arises, such as what motion can be made, its order of precedence, whether or not it can be debated, its effect, etc., the common law of deliberative bodies in this country is settled by the practice of the United States House of Representatives, upon the general principles of which the rules in this Dictionary of Parliamentary Law are based. Whether or not the rules in any particular manual be the most rational, is not of so much importance as that there should be a rule by which to act, that there may be a uniformity of proceeding in business, not subject to the captiousness of the members, or the caprice of the presiding officer. Every deliberative assembly not having such a manual of its own, should adopt one of the many that are published.

PERMANENT SOCIETY.—Any society whose meetings occur at regular intervals, and having a Constitution and By-Laws. In the organization of a permanent society the proceedings are the same as given under Organization until the temporary secretary and chairman are elected, when the chairman calls on some interested party to state the object of the meeting. This done, others may be called on to express their opinions upon the subject. The parties interested should have previously agreed upon what is to be done; and, when the proper time comes, be prepared to offer a suitable resolution, similar in form to the following: "Resolved, That it is the sense of this meeting that a society for (here state object) should now be organized in this city." After seconding, and statement by the Chairman, this resolution is open to debate. After the adoption of the resolution, a motion may be made for the appointment of a committee to draft a constitution and by-laws, to be reported at an adjourned meeting. This motion is debatable and can be amended. At the adjourned meeting the temporary chairman and secretary serve until the permanent officers are elected and installed. (See Officer). After the reading and approval of the minutes of the previous meeting, the report of the committee on the Constitution and By-Laws is read by the chairman of the committee, who then hands it to the presiding officer. When a motion has been made and seconded that the report of the committee be adopted, the Chairman says, "The question is on the adoption of the Constitution reported by the committee." He then reads the Constitution, each article separately, pausing and asking the question, "Are there any amendments proposed to this article?" At the close of the reading of the last article, he says, "The whole Constitution having been read, it is open to amendment." If amendments are desired, after they have been made, the Chairman inquires, "Are you ready for the question?" If no one wishes to speak, he puts the question: "As many as are in favor of adopting the constitution as amended will say aye;" and then, "As many as are opposed will say no." After the adoption of the constitution, it will be necessary for those wishing to become members to sign it and pay the initiation fee, for which purpose a recess should be taken. The constitution being signed, only those having signed it, are permitted to vote on the adoption of the By-Laws, which is next in order. The procedure is the same as in the adoption of the Constitution. The next business is the election of the permanent officers of the society, some one moving the appointment of a committee to nominate the permanent officers, which motion is treated the same as under Organization. As each officer is elected, he may be inaugurated, or wait till all are elected, then install all at the same time. (See Officer for oath of office). In case the society is to own real estate, it should be incorporated according to the laws of the State in which it is situated.

PERSONAL EXPLANATION.—Any explanation relating to an individual, his character, conduct, private affairs, motives, etc. It is not a matter of privilege, and cannot be made without either the implied or expressed consent of the assembly.

PERSONALITY.—Anything said which refers to the person, conduct, etc., of an individual, especially something of a disparaging or offensive nature. Everything of a personal nature should be studiously avoided, in order to secure as far as possible continued harmony among the members of the assembly. Any allusion to the personal appearance of another member, reference to his peculiarities, ridicule of his private opinions on religious or political matters, is all very ungentlemanly, and will, in the end, react to the injury of the person making the remarks. If, however, any personal allusions are made, they should be of a courteous and complimentary character.

PERSONAL PRIVILEGE.—Any right or immunity enjoyed by any member of an assembly, and which concerns his security as a member. (See Privilege).



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PETITION.—A formal written request addressed to an organized assembly, having power to grant it. In presenting a petition to an assembly for consideration, the person presenting it should be so informed of its character, as to be able to make a plain statement of its contents. For the method of presenting a petition see New Business and Introduction of Business.

PLURALITY.—The excess of votes given for one candidate over those given for another, or for any other candidate. If there be more than two candidates, the one receiving the plurality of votes may have less than a majority; in which case, in most deliberative assemblies, there would be no election. (See Majority and Voting).

POINT OF ORDER.—A question arising on a breach of, or departure from the rules of order. It supercedes the main question from which it arises; and, after its decision, the original question is regularly before the assembly, unless its decision has been reached in the incidental question. A question of order is not stated for the assembly's decision, but for the presiding officer, either of his own accord, or at the suggestion of a member. If the decision of the Chair be unsatisfactory, an appeal may be made to the assembly. (See Appeal, Call to Order, Decorum in Debate and Rules of Order).

POSTPONE.—To defer or put off to a future or later time; as, to postpone the consideration of a question to the following meeting, or indefinitely. A motion to postpone to a certain day, supercedes a motion to commit, amend, or indefinitely postpone; and yields to any incidental or privileged question, a motion to lie on the table, or for the previous question. It may be debated to a limited extent, may be amended by altering the time, and may have the previous question applied to it. When a subject has been postponed to a certain time, it cannot be taken up before that time, except by a two-thirds vote; and when the specified time comes, it yields to nothing except privileged questions. A subject cannot be postponed to a time beyond the current session, except to the day of the next session, when it comes up with the unfinished business, it taking precedence of any new business. If several questions be postponed to different times, and are not reached then, they must be considered in the order of the times to which they were postponed. (See Indefinite Postponement).

PREAMBLE.—The introductory part of a constitution, resolution, or other written document, in which the reasons are stated for what follows. The preamble commences with the word whereas, and should be considered after the rest of the paper.

PRECEDENCE.—Act or state of preceding or going before in order of rank or time; as, a motion to adjourn takes precedence of other motions. For the order of precedence of the different motions, see each in its proper order; see also Summary of Parliamentary Procedure at the beginning of this subject.

PRESIDING OFFICER.—The chief officer of a society or other deliberative assembly. Various titles are assigned him, according, to some extent, to the nature of the assembly; as, Chairman, President, Moderator, etc. The chief duties of the Presiding Officer are: (1) To call the meeting to order at the appointed time. (2) To state or announce the order of business at the several stages. (3) To receive motions when regularly made. (4) To put questions to vote, and announce the result. (5) To receive messages and communications, and announce them to the assembly. (6) To sign, when directed, the acts, orders, or other proceedings of the assembly. (7) To give information, when requested, on points of order or usage. (8) To appoint committees unless otherwise provided. (9) To enforce the established rules of order, also general order and decorum. (10) To represent and stand for the assembly, declaring its will impartially, and obeying its commands in all things. The presiding officer is entitled to the privilege of voting when the vote is by ballot, and in all other cases, when there is a tie vote, he gives the casting vote. If a two-thirds vote is needed for the adoption of any question, his vote thrown with the minority would prevent it; also, he can vote with the minority when it will produce a tie vote and thus cause the motion to fail. When stating a question, the Chairman may remain sitting, but when putting it to vote, or speaking to a question of order, he should rise. A motion referring to the Chairman, should be put to vote by the maker of the motion. To avoid the appearance of being a partisan, and thereby losing much of his ability to control those on the opposite side of the question, the Chairman should rarely, if ever, call a member to the chair, and himself take part in the debate. If for any cause the Chairman is necessitated to vacate the chair, in the absence of a Vice-President, he may appoint a Chairman pro tem., who (unless the assembly object, and elect another one), can serve till the first adjournment, but not longer. In the event that the Chairman is absent from the opening of any meeting, there being no Vice-President, the Clerk, or in his absence, any member, should call the meeting to order, and a Chairman pro tem. be elected, who would hold office during that session, unless the regular Chairman return. When referring to himself, the Chairman should always use his official title; thus, "The Chair decides so and so." The Chairman should be a man of executive ability, and should be familiar with parliamentary usage, setting the example of strict conformity thereto. For the election of the presiding officer, see Organization and Permanent Society. For the chairman of a committee, see Committee.

PREVIOUS QUESTION.—A method of moving the rejection of any motion or question—a member gets a motion put, while another holding different views, without moving a direct negative, may simply move 'the previous question,' and the adoption of the latter motion secures the rejection of the former, or rather, forms a complete bar to any amendment, or discussion of the question. It take precedence of every debatable question, yields to incidental and privileged questions, and to the motion to lie on the table. It cannot be debated, amended, or have any subsidiary motion applied to it, and requires a two-thirds vote for its adoption. A motion for the previous question being made and seconded, the presiding officer, without delay, states the question and asks, "shall the main question be now put?" If the decision be affirmative, the main ques-

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tion must be immediately put, without debate or further consideration, the result being the will of the assembly on such main question. If the decision on the previous question be negative, the main question is removed from the house for the day, in most assemblies; but in a few the main question may be debated at any time during the sitting. If the previous question be moved and adopted on a pending amendment, debate is closed on the amendment only. If a motion is made to reconsider, to appeal, or to postpone, the previous question is exhausted by the vote on the reconsideration, appeal, or postponement, and does not cut off debate upon any other motions that may be pending. If the call for the previous question fails, the debate continues the same as if this motion had not been made.

PRINCIPAL QUESTION.—The same as Main Question.

PRIORITY.—State of being first in time, place, or rank. All questions relating to the priority of business are undebatable.

PRIVILEGE.—A peculiar benefit, advantage, or a right or immunity enjoyed alone or with a few. A Question of Privilege is one which concerns the security of any member of a deliberative assembly in his special privileges as such. It takes precedence of all other questions, except to "fix the time to which to adjourn," and to "adjourn." If the question requires immediate action, the member speaking may be interrupted. The Chairman should decide whether or not any question is one of privilege, from which decision any two members may appeal. A question of privilege may be laid on the table, referred to a committee, or have any other subsidiary motion applied to it; and as soon as disposed of, the assembly resumes consideration of the question interrupted.

PRIVILEGED QUESTIONS.—Those which, on account of their importance, take precedence of all other questions; and, excepting when relating to the rights of the assembly or its members, are undebatable. There is a distinction between "questions of privilege" and "privileged questions;" thus, disorder in the gallery, or charges made against the official character of a member, are examples of the former; while the latter include only those given under Motion, second classification, IV.

PROGRAMME.—An outline or brief explanation of the order and subjects, including the orders of the day, of any public exercise or performance.

PUTTING THE QUESTION.—The act of stating a question, by the Chairman, that the assembly may know what question is before them. Before the Chairman puts the question or motion, it must be seconded; unless in routine work, where, in order to expedite matters (no one objecting), both the motion and the second may be dispensed with; also, the following motions require no second: "a call for the orders of the day," "an objection to the consideration of a question," and "a call to order." The common form of stating the question is, "It is moved and seconded that (here give the motion)." If it be a resolution, "The question is on the adoption of the resolutions just read." In stating an appeal, after giving his decision (the reasons may be included), the Chairman says: "The question is, shall the decision of the Chair stand as the judgment of the assembly?" When stating the question on an amendment, the Chairman should first read the passage to be amended, then state the words to be inserted or struck out, if any, and finally the entire passage as it will stand if the amendment be adopted; he then states the question in this form: "The question is, shall the word _____ be inserted in the resolution in the place of the word _____?" After announcing the result of the vote on the amendment, the Chairman says: "The question now recurs on the resolution as amended," as the case may be. If the question can be debated or amended, after statement by the Chairman, unless some one immediately rises, he says: "Are you ready for the question?" If the Chairman thinks the debate is closed, he again asks the same question, after which he once more states the question, and then puts it to vote by saying: "As many as are in favor of the motion will say aye; those opposed will say no."

QUESTION.—Any subject of investigation, examination, or debate. For the various forms, see Order, Motion, Privilege, and Putting the Question.

QUORUM.—Such a number of individuals of any regularly organized assembly who are entitled by law, or by their own rules, to transact business. In the absence of any special rule on the subject, a quorum is a majority of all the members of the assembly. If the assembly be a large and permanent organization, where only a small fraction of the members are ever present at any meeting, a much smaller number is adopted, sometimes being less than one-twentieth of the whole number of members. If no quorum be present, it is not necessary for the presiding officer to take the chair, except to adjourn; but, if there be no objections, the debate may be continued, but no vote except to adjourn, can be taken. In committees of the whole, and in other committees, unless otherwise provided, a majority is a quorum. When important business is to be transacted, it is not usually expedient for a mere quorum to proceed, unless a previous notice of such intended action has been given.

READING OF PAPERS.—See Papers and Documents.

RECEPTION OF REPORTS.—See Committee.

RECOMMIT.—To refer again to a committee; as, to recommit a subject to the same committee. (See Commit).

RECONSIDER.—To take up for consideration again that which has already been settled; as, a motion or a vote. A motion to reconsider a vote, if carried, opens the original question to full debate again the same as before the decision on it was made. A motion to reconsider is in order at any time, but the question cannot be reconsidered while another question is before the assembly. Except when voting by ballot, the motion to reconsider must be made by a member who voted with the prevailing side. A motion to reconsider the vote on a subsidiary motion takes precedence of the main question, and yields to a privileged question (except for the orders of the day), also to incidental questions. This motion

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cannot be amended, and may or may not be debated, depending upon whether or not the question to be reconsidered is debatable. If debatable, it opens up for discussion the entire subject to be reconsidered. It may be applied to the vote on every other question, except "to suspend the rules," "to adjourn," and "to lie on or take from the table," when voted on affirmatively. A question cannot be twice reconsidered, and when a motion to reconsider is laid on the table, the pending measure is not carried with it. The previous question having been partly executed, it cannot be reconsidered; nor if anything which the assembly cannot reverse has been done as the result of a vote, then that vote cannot be reconsidered. The reconsideration of another question cannot be made to interfere with the discussion of any question before the assembly; but when that subject is disposed of, the reconsideration takes precedence of everything except "to adjourn," and "to fix the time to which to adjourn." Regardless of the vote necessary to adopt the motion reconsidered, a reconsideration requires only a majority vote for its adoption. In Congress a motion to reconsider a vote must be made on the same or succeeding day; but in a permanent society, holding meetings weekly or monthly, and usually only a small proportion of the society is present, it is best to allow a reconsideration to hold over to another meeting, that the society may have notice of what action is about to be taken.

RECORD.—An authentic or official copy of any facts or proceedings which have been entered into a book for preservation; also the book containing such proceedings. (See Minutes).

RECORDING OFFICER.—One whose duty it is to enroll or write in a book facts and particulars of transactions for preservation. (See Clerk and Secretary).

REFER.—To send or direct a matter to a committee for information or decision. A motion to refer to a committee is the same as a motion to commit, which see.

RENEWAL.—The act of renewing or repeating; as, the renewal of a motion. A principal question or amendment having once been acted upon by the assembly, it cannot be taken up again at the same session, unless it be by a motion to reconsider. Any privileged or incidental motion (except for the orders of the day, or to suspend the rules), or subsidiary motion (except to amend), may be renewed by the introduction of any motion that alters the state of affairs, the real question before the assembly, in such a case, being a different one. A motion not having been acted upon because of withdrawal, can be renewed; so also can a subject which has been referred to a committee which reports at the same meeting, the matter standing before the assembly as if it had been introduced for the first time. (See Reconsider).

REPORT.—To give an official account or statement of facts, proceedings, etc., as the treasurer's report, or that of a committee. (See Committee, Treasurer, and Minutes). To accept a report is the same as to adopt it, and should not be confounded with receiving it.

RESOLUTION.—A formal proposition brought before an assembly for discussion and adoption. (See Committee, Order of Business, and Organization).

RIGHT.—A privilege, legal title, or claim that justly belongs to any one. For the rights of assemblies, see Legal Rights. For the rights of religious organizations, see Ecclesiastical Organizations. For the right to the floor while speaking, see Floor.

RISE.—To close or terminate an official sitting; as, the committee rose after agreeing to the report. (See Adjourn and Committee).

ROUTINE.—The round or regular course of business or official duties returning with each regular meeting of an assembly.

RULE.—That which is established or prescribed by authority for the guidance and direction of the conduct and deliberations of an assembly. For the rules of debate, see Debate and Decorum in Debate. For rules relating to motions, see Summary of Parliamentary Procedure at the beginning of this subject. (See Constitution, By-Laws, Rules of Order, and Suspension of Rules).

RULES OF ORDER.—The rules relating to the orderly transaction of the business in the meetings of a society, and which may be changed without giving previous notice to that effect. The Rules of Order should contain provisions for the suspension of the By-Laws and other rules and regulations; though the By-Laws sometimes contain provisions for the suspension of certain articles. (See By-Laws, Constitution, and Standing Rules). Every society should adopt some work on parliamentary practice, to govern the society in all cases to which they are applicable, and in which they are not inconsistent with the rules of order governing that society.

SECOND.—To support, as a motion or proposal, by adding one's voice to that of the mover or proposer. An objection to the consideration of a question, a call for the order of the day, a question of order (except an appeal), and many questions of routine, do not require to be seconded. (See Putting the Question).

SECRETARY.—An officer whose duty it is to write orders, letters, dispatches, papers, records, and the like. When there are two secretaries, one is called the "recording secretary," and the other the "corresponding secretary." In addition to the duties of the "recording secretary" given under Minutes, in many societies he collects the dues of members, and thus becomes to a certain extent a financial officer. It is the duty of the "corresponding secretary" to manage the correspondence of the society, and transact other minor duties. For the election of Secretary, see under Organization. The following are the chief duties of the Secretary: (1) To call the roll of the assembly whenever ordered, noting the absentees, and at other times the answers on the yeas and nays. (2) To take notes of all proceedings, making entries in the records of all things done in the assembly. (3) To notify committees of their appointment and the business to them referred. (4) To read all papers, etc., when ordered. (5) To sign, sometimes with the presiding officer, the acts and other proceedings of the assembly. (6) To guard all the papers and documents of the assembly and have them for convenient reference. (7)

Signification of the Positions of the Hands. 1. Apathy or prostration. 2. Violent repulsion. 3. Cautioning. 4. Emphatic declaration. 5. Simple affirmation. 6. Energetic appeal. 7. Resignation. 8. Denial or negation.

In some instances, to make an entry of what is merely proposed or moved, without coming to a vote, and to take notes of all or particular speeches.

SELECT COMMITTEE.—A committee appointed for a special purpose. For rules governing its procedure, form of report, etc., see Committee and Commit.

SERGEANT-AT-ARMS.—An officer who preserves order, apprehends and punishes offenders, and executes various orders and commands, particularly in legislative assemblies.

SESSION.—The time, period, or term during which a deliberative assembly meets for the transaction of business. In legislative bodies the limits of the session are clearly defined; as, a session of one hundred days, or as the case may be; but in ordinary deliberative assemblies having a permanent existence, with regular meetings more or less frequent, the limits are not clearly defined, there being much confusion on the subject. Parliamentary law would make each of its regular or special meetings a separate session; but the assembly or society itself is competent to determine what shall constitute one of its sessions, whether or not it include all the meetings held within any specified time; as, the term for which the officers are elected. In parliamentary practice a session is terminated by an "adjournment without day," the intermediate adjournments from day to day not destroying the continuity of the meeting, which constitutes one session. If a society does not meet till the time for the next regular meeting, as provided in its By-Laws, an adjournment is in effect without day, and closes the session. If, however, it previously fixes the time for the next meeting, either by a direct vote or by adopting a programe of exercises covering several meetings, or even days, in either case the adjournment is in effect to a certain day, and does not close the session. Any one session of an assembly may adopt a resolution or rule of a permanent nature, which continues in force until it is rescinded at some future session; but no one session of an assembly can interfere with the rights of the assembly at any future session, unless it is expressly so provided in their Constitution, By-Laws, or Rules of Order, all of which should be so constructed as not to be subject to sudden changes. It is contrary to parliamentary practice for an assembly to postpone anything to a day beyond the next succeeding session, thus preventing the next session from considering the question; nor is it permitted for one session to move the reconsideration of a vote taken at a previous session, unless it was made at the last meeting of the previous session. Committees may be appointed to report at a future session; also, if a principal motion be rejected or indefinitely postponed at one session, unless prohibited by a rule of the assembly, it can be introduced again at the next.

SPEAKING.—For obtaining the right to address the assembly, see Floor. For various points relating to speaking, as holding or yielding the floor, limit of speech, number of times, etc., see Debate, Decorum in Debate, and Personality.

SPECIAL ORDER.—An order of the day assigned to a particular time for consideration. (See Orders of the Day).

STANDING RULES.—All resolutions of a permanent nature, adopted by a society at occasional times, and which are binding on the society until rescinded or modified. They may be adopted at any meeting by a majority vote, but cannot be modified at the same session except by a motion to reconsider. No standing rule can be adopted which conflicts with the Constitution, By-Laws, or Rules of Order; and at any future session, whatever resolutions or standing rules may have been adopted at any previous session, may, by a majority vote, be suspended, modified, or rescinded. In practice the various classes of rules are frequently very much mixed, the standing rules even assuming the rank of the By-Laws, and not being capable of being suspended, or even amended without a previous notice. This confusion is produced without a corresponding benefit, and should be guarded against.

STANDING COMMITTEE.—A committee which is appointed for the session, or for some definite time, as one year. (See Commit and Committee).

STATING A QUESTION.—The act of expressing or representing clearly the exact words of any question or particulars of any subject, that the assembly may know what is before them for consideration. (See Putting the Question). Whenever any member fails to understand a question, the Chairman should state the same for the information of the member, if desired.

STRIKE OUT.—To efface, erase, or blot out, used when making amendments. The different methods of amending are, by "adding" words, by "striking out" words, by "striking out certain words and inserting others," by "substituting" a different motion on the same subject for the one before the assembly, or by "dividing the question" into two or more questions. (See Amendment).

SUBSIDIARY MOTION.—Any secondary motion or question which may be applied to other motions, for the purpose of most appropriately disposing of them. The Subsidiary Motions, given in the order of precedence among themselves, are: (1) To lie on the Table. (2) The Previous Question. (3) To Postpone to a Certain Day. (4) To Commit. (5) To Amend. (6) To Postpone Indefinitely. They supersede principal questions, being acted upon before them, and yield to incidental and privileged questions. They may be applied to one another; (1) The Previous Question may be applied to the motions to Postpone, without affecting the main question, and can, if specified, be applied to a pending amendment. (2) A motion to Amend the minutes can be laid on the table without carrying the minutes with it. (3) The motions to Postpone to a certain day, and to Commit, can be amended. Except to Amend, any of these motions can be made when one of a lower order is pending, but none can supersede one of a higher order. For the details of each of these motions, see it in its proper order.

SUBSTITUTE.—To put one motion in the place of another. This motion is one of the five forms of amendment. (See Strike Out).

9. Gentle entreaty. 10. Earnest entreaty. 11. Supplication. 12. Argumentation. 13. Anger or determination. 14. Carelessness.

SUM.—In the filling of blanks, any aggregate of numbers. In stating questions involving time or quantity, the longest time and the largest sum proposed shall be first put to the question.

SUPPRESSION.—The act of holding back, retaining, or repressing, as applied to questions. Among the various plans to suppress a question, or prevent its passage, are: (1) To move to adjourn. This motion being in order at any time, will usually be effective if the hour be late. (2) To move to lie on the table. The argument for this motion may be that more time and better opportunity to consider the merits of the question may be had at a subsequent occasion. (3) To move to postpone indefinitely. If a measure be unpopular, this motion often virtually defeats it. (4) To move to postpone to a future time. The effectiveness of this motion lies in the contingency of the question being either forgotten subsequently, or not taken up because of the pressure of business at the appointed time. (5) To move the "previous question." This may be done when the measure is either unpopular, or if the meeting be unwilling to pass a measure without due consideration. (6) To move that the question be now put. The reason for this motion is that indefinite changes may be made in the question, sufficient to show the importance of some amendment. (7) To move "to commit," or if once considered by a committee, "to recommit." The argument is that a committee having jurisdiction of that class of questions, should first consider it. (8) To move an amendment. The object being to greatly change, modify, or weaken the force of the question. (9) If the question be put and carried, to move a reconsideration. The pretext being that subsequent light on the subject may cause the members to change their opinions. (See each of the above motions in its proper order; see also Objection).

SUSPENSION.—The act of temporarily delaying, interrupting, or withholding, as of the rules. A motion to suspend the rules is undebatable, cannot be amended, cannot have a subsidiary motion applied to it, cannot be reconsidered when voted upon, nor can it be renewed at the same meeting. The form of the motion is, "to suspend the rules which interfere with, etc." The rules cannot be suspended except for a definite purpose, and by a two-thirds vote. If giving a right to a one-third minority, unanimous consent is required. If no one object, i.e., by "general consent," the rules relating to the transaction of business can at any time be disregarded without the formality of a motion.

TABLE, TO LIE ON.—To receive any document or written communication, as a report, a motion, etc., but to agree to postpone its consideration indefinitely. (See Lie on the Table). For a motion to take from the table, see Lie on the Table.

TAKING PRECEDENCE OF.—Being in order while one or more other motions are pending. (See Precedence).

TERM.—The fixed period of time for which officers or committees are appointed or elected, as one year.

TIME.—When refered to in filling blanks, see Blanks. For the limit of time in speaking, the number of times one can speak, etc., see Speaking. For the time to which to adjourn, see Adjourn and Fixing the Time to which to Adjourn.

TITLE.—An appellation, or name of honor or dignity. A lady acting as presiding officer, is addressed as "Mrs. President," or "Miss President," as the case may be. The titles of clerk, secretary, recording officer, treasurer, etc., are the same, whether applied to ladies or gentlemen. The presiding officer will designate the speaker, if a lady, by name, by number; or as the lady, the number, the delegate, the representative, etc., as may be most convenient. (See Honorary Members).

TO SECURE THE PASSAGE OF A QUESTION.—(1) Give the matter very careful and considerate attention, that you may be thoroughly informed concerning its merits, and able to fully illustrate its claims. (2) Circulate freely among the members, forming personal acquaintances, holding conversations relative to the measure, and thereby form favorable impressions concerning the subject to be introduced. (3) Introduce the motion at a time when an adjournment is not probable, and when there is no pressure of business. (4) When first introducing the measure, properly present its claims to the members of the assembly. (5) In case of adjournment, or if the question be laid on the table or postponed, promptly bring it up at the first opportunity. (6) Should the matter be referred to a committee, acquaint its members with the claims of the question. (7) In the event of the passage of an entirely modified form from the original, introduce another question, under a different name, but involving the same principle. (8) If subsequent events seem to have changed the opinions of the members, try to have the question reconsidered.

TO MOVE.—A motion and a question, while nearly synonymous, are yet somewhat different in meaning. To move that an act be passed, is termed a motion. The subject to be acted upon, is called the question. The action of the assembly is designated a resolution or vote. When the motion is put and the question adopted, the decision is known as an ordinance, order, law, statute, resolution, etc., according to the character of the assembly.

TO TAKE UP A QUESTION.—After a question has been postponed to a certain time, the member interested in its introduction, has a right to insist that the subject be taken up at the appointed time. As no delay or debate is allowed on the matter of taking it up, the presiding officer should at once put the motion whether the meeting proceed to take up the order of the day.

TREASURER.—An officer who has charge of the money or funds of the society or assembly. The duties of this officer vary in different societies; but in general, he simply holds the funds of the society, and paying them out on the order of the society signed by the secretary. He is required to make a written statement at the close of the year, or of his term of office, showing, (1) The amount on hand at the commencement of the year or term. (2) The amount received. (3) Amount paid out. (4) Balance on hand. After the report is presented, it

POSITIONS OF THE FEET.

1. The change from the second to the first position is made by stepping forward with the right foot, throwing the principal weight of the body upon it, only the shaded part of the left resting upon the floor. This position is assumed in impassioned speech, earnest appeal, and bold assertion. **2.** The left foot supporting the body, with right foot advanced.

should be referred to an "auditing committee," to examine the treasurer's books and vouchers. The following is a common form for the treasurer's report:

Treasurer's Report.

The undersigned, Treasurer of the Lincoln Society, begs leave to submit the following annual report: The balance on hand at the commencement of the year was forty dollars and sixty cents. There was received from all sources during the year two hundred dollars and seventy cents. During the same time the expenses amounted to one hundred ninety dollars and thirty-five cents, leaving a balance on hand of fifty dollars and ninety-five cents. The annexed statement of receipts and expenditures will show in detail the sources from which the receipts were obtained, and the objects to which the expenditures have been applied. All of which is respectfully submitted. **Ella Hammond,**
Treasurer Lincoln Society.

The statement may be made by simply giving a list of receipts, followed by a list of expenses, and closing with a balance on hand; or it may be made out in the form of an account. The auditing committee's certificate to the correctness of the account should be written on the statement.

TRIAL OF MEMBERS.—Every deliberative assembly has the right to investigate the character of its members, when such is called into question. When a charge is preferred against a member's character, it should be referred to a committee of investigation or discipline, whose duty it is to inquire into the matter and report to the society. This report should contain recommendations as to what action the society should take, and close with resolutions covering the case. The ordinary resolutions when a member is recommended for expulsion are, (1) to fix the time to which the society shall adjourn; and (2) to instruct the clerk to cite the member to appear before the society at this adjourned meeting to show cause why he should not be expelled, upon the following charges: (state them). The procedure at the trial is the same as at any ordinary trial, which is found elsewhere in this volume. A two-thirds vote is necessary to expel a member.

TWO-THIRDS VOTE.—For a list of the motions requiring a two-thirds vote, see Motion.

UNDEBATABLE QUESTION.—A question that must be decided without debate. The following is a list of undebatable questions, which in most cases admit of no debate whatever; but in a few cases some of them may be debated to a limited extent, for which see the details of each motion in its proper order. (1) To fix the time to which to adjourn. (2) To "adjourn," or in a committee "to rise." (3) For the "orders of the day," or questions relating to the "priority of business." (4) An "appeal," in certain cases. (5) "Objection to the consideration of a question." (6) To "lie on the table," or to "take from the table." (7) The "previous question." (8) To "reconsider." (9) To "postpone to a certain time." (10) Questions relating to "reading of papers," "withdrawing a motion," "suspending the rules," "extending the limits of debate."

UNFINISHED BUSINESS.—Any business not brought to an end at a previous meeting. (See Adjourn and Order of Business).

VICE-PRESIDENT.—An assistant chairman, or his deputy. The duty of this officer is to act in the absence of the presiding officer. Sometimes there is a number of vice-presidents appointed for mere complimentary purposes.

VOTING.—The act of choosing or electing by suffrage. Except on unimportant matters where the assembly is supposed to consent, all questions must receive a formal vote of the assembly to be considered its will. The different methods of voting are by ballot, viva voce, calling the yeas and nays, by raising the hands, by standing, and by dividing the house—one party going to one side of the room, and the other to the opposite side. The affirmative side of the question is always put first, and if the number of voters be very large, the Chairman may appoint tellers to assist in determining the result of the vote. The majority of votes of those present constitutes the will of the assembly, except as noted under Motion, and Plurality. For the different forms of putting the question to vote, see Putting the Question. The Chairman should always announce the result of the vote in the following form: "The motion is carried—the resolution is adopted," or, "The ayes have it—the resolution is adopted." If any member doubt the result of the vote, he may call for a division, when the Chairman will call for a rising vote, the votes on each side being counted. When not voting by ballot, and before the result has been announced, any member has the right to change his vote. Until the negative has been put, it is in order for any member to rise and speak, the same as if the voting had not commenced. A member cannot vote on a matter affecting himself, except when more than one name is included in the resolution, when all are entitled to vote. When there is a tie vote the motion fails, unless the Chairman gives his vote for the affirmative. (See Presiding Officer). For an appeal vote, see Appeal. When required by the Constitution or By-Laws, the voting must be by ballot; for which purpose the presiding officer appoints two or more tellers to distribute slips of paper, upon which each member, including the Chairman, writes his vote. Voting by yeas and nays has the effect of putting on record how each member votes, as the clerk calls the roll, each member rises and answers "yes" or "no." After the commencement of the roll call it is too late to ask to be excused from voting. The yeas and nays cannot be ordered in committee of the whole.

WITHDRAWAL OF A MOTION.—If the mover of a question wishes to withdraw or modify it, or to substitute another in its place, after it is before the assembly, if no one object, the Chairman gives permission; but if any one object, a motion must be made, and voted upon by the assembly. Such a motion is undebatable. The motion being withdrawn, the effect is the same as if it had never been made.

YEAS AND NAYS.—Affirmative and negative votes, equivalent to yes and no. For method of thus voting, see last paragraph under Voting.

YIELD.—One motion is said to yield to another, when the second may be made while the first is pending.

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ETIQUETTE

In the following vocabulary will be found the principal laws of practical etiquette. The arrangement is alphabetical in order to facilitate ready reference. Civility and good breeding are necessary to success in life, and the person possessing these virtues is always welcome in all society. Almost the first requirement is good common sense. While this admits of piquancy and dignity, it is also a host arrayed in one's favor. True politeness comes from a knowledge of ourselves and respect for others, and constitutes propriety of deportment, coupled with good nature and a desire to please.

ABSENT.—It was one of Washington's maxims to speak no evil of the absent, as it is unjust.

ABSENT-MINDED.—In society the absent-minded man is uncivil. Avoid it.

ACQUAINTANCES, TRAVELING.—All well-dressed people are not members of good society. Treat every person with civility, but be extremely careful in permitting any one to exercise any familiarity which is not warranted among entire strangers.

ADDRESS.—Add the name in addressing persons with titles; as, "What do you think, Doctor Graves?"

Young misses are address by a teacher as "Miss Julia," or "Miss Annie," etc. Young boys as "Master Brown," etc.

Pupils should address the teacher as "Miss or Mr. Smith," not as "Teacher."

ADIEU.—In making calls it is a breach of etiquette to resume your seat after having left it to say adieu.

ADVICE.—Avoid all officious offers of advice or your own opinion, and if you do give an opinion, represent it not as fact.

AGREEABLE.—In society one should make himself agreeable, doing his best to assist conversation, both by talking gracefully and easily, and listening patiently, even though it be a twice-told tale.

ALL ONE CAN DO.—(Washington's maxim) When a man does all he can, though it succeeds not well, blame not him that did it.

ANECDOTES.—These should be sparsely used in conversation, lest they become stale.

ANGER.—It is very unbecoming to exhibit petulance or angry feeling in society circles. The true gentleman does not suffer his countenance to be easily ruffled.

ANIMALS.—These, affording us pleasure or profit, should be treated with humanity, and every attention paid their wants.

ANNOYANCES.—The habit of drumming with the fingers on the furniture, beating time with the feet, humming, and whistling, indicate a want of good breeding, and are very offensive to refined people.

APOLOGY.—No gentleman may refuse an apology, no matter how great the offense.

If by accident or design we violate the rights of another, we should make amends by promptly apologizing.

APPLAUSE.—In concert or lecture rooms the applause manifested by catcalling, whistling, shouting, etc., do not distinguish refined and polished people, and always give offense to the better portion of the audience.

APPROBATION.—When the sentiments of a public speaker or performer are agreeable, we may approve them by the clapping of hands for his encouragement, but if they do not meet our approbation, we should not offend others by hissing or giving other evidence of disapproval.

APPAREL.—(Washington's maxim).—In your apparel be modest, and endeavor to accommodate nature rather than procure admiration. Keep to the fashion of your equals, such as are civil and orderly with respect to time and place.

ARGUMENT.—One should not argue a point when it is possible to avoid it, but when he does, he should do it in a gentlemanly and impassionate manner.

ASSOCIATES.—One is judged, to a great extent, by the character of his associates.

ATTENTION.—To listen well is almost as great an art as to talk well. One must not only give perfect attention, but endeavor to seem interested, and never show impatience at the length of the conversation.

ATTENTION TO LADIES.—It is etiquette for a gentleman to hand a lady a chair, open the door for her to pass out, pick up anything she may drop, or remove anything that may be in her way, even though she be an entire stranger to him.

BACK.—(Washington's maxim). Turn not your back to others, especially in speaking. Jog not the table or desk on which another writes; lean not on any one.

BASHFUL.—He who knows the world, will not be too bashful. He who knows himself, will not be impudent.

BEHIND.—A child should be taught to pass behind, and not before any one.

BENEVOLENCE.—The charitable heart will find no difficulty in discovering those who need assistance. A kind approving smile, a gentle, encouraging word, a cup of cool water, a friendly visit or a timely pecuniary help, are little in themselves, and yet are invaluable.

BETRAYAL OF CONFIDENCE.—It is a breach of etiquette to betray confidence, even if not bound to secrecy; an implied confidence is as sacred as one expressed.

BETTING.—Betting is highly prejudicial to good morals, for he who bets is naturally anxious to win, and has the strongest temptation to use dishonest means to secure his wager.

BOASTING.—Avoid boasting of your own position, wealth, luxuries, or possessions of any kind.

BONES.—It is an old and homely adage, but a true one, that "the dog who brings a bone will carry one."

BOOKS.—Remarks written in a borrowed book are unpardonable; in books from public libraries they are in bad taste. Care should be exercised in asking for the loan of books, and when obtained, should be returned as soon as possible, in apparently as good condition as when borrowed.

BORES.—Though bores find their account in speaking ill or well of themselves, it is the characteristic of a gentleman that he never speak of himself at all.

BORROWING.—In borrowing great care must be taken that the practice does not become a nuisance, as it surely does where it is indulged in too frequently, and when borrowed articles are not speedily returned, and in good condition. There should be no stinted measures in returning.

BOWING.—A lady must recognize a gentleman by bowing before he is at liberty to salute her; should she recognize him he should raise his hat a little from his head, with the hand furthest from her,

FROM PENCOPY BY THE AUTHOR

ETIQUETTE—CONTINUED.

and return her salutation with a slight inclination of the body.

A gentleman may bow to a lady seated at a window, if he is passing on the street; but he must not bow from a window to a lady on the street.

A gentleman, walking with a friend, and meeting a lady with whom his friend is acquainted, must bow, although the lady may be a stranger to him.

A lady, in passing a gentleman, who stands aside for her to pass, must acknowledge the courtesy with a slight bow.

A gentleman cannot refuse to return the bow of any respectable lady.

Young men or boys, meeting their superiors in age and station, or the other sex who recognize them, should lift their hats slightly, and make a respectful bow.

BREAKING UP.—If it be necessary for one to leave before the proper time arrives for the company to go home, it is better to do so without attracting attention. It is not discreet to "wear out one's welcome," by staying to an unreasonable hour; it would be better to have our friends to regret our going than to wish we were gone. When leaving, we should see our entertainers and bid them good-bye.

BUSINESS AFFAIRS.—It is not considerate for a gentleman to talk of his business affairs to a lady, or for her to weary him in recounting her domestic affairs.

BUSINESS HOURS.—It is a breach of etiquette to intrude upon a business man or woman during business hours.

CALLING.—To neglect to call upon one's friends is at once a breach of etiquette and an injury.

It is improper in the extreme for a lady to call upon a gentleman, excepting on business, at his place of business.

Calls are of ceremony, friendship, congratulation, or condolence.

In making calls, ladies, as well as gentlemen, send in but one card, no matter how many they may wish to see.

Within three days after an entertainment, if a first invitation, calls ought to be made; within one week after a formal entertainment.

A call of congratulation is made by acquaintances, one month after the birth of a child.

A call of congratulation is due to the newly married, also to the parents who gave the invitations to the marriage.

Calls of condolence are made within ten days after the death, if on intimate terms with the family, or if otherwise within a month.

If a gentleman be invited by a lady to call upon her, he cannot, without great discourtesy, neglect to pay the call within a week.

A call ought always to be returned but if the acquaintance is not desirable, the first call may be the last.

Among intimate friends informal calls, made out of the conventional hours, are the most agreeable.

When calling, a lady should never ask a gentleman to take his hat, or a lady to lay aside her wraps.

The hours for calling vary in different cities, and are regulated by the prevailing custom of the place.

It is a gross impropriety for a gentleman to receive calls at his home from ladies, unless it be those in the immediate family.

CANT.—Do not use Scriptural phrases or proverbs; cant is detestable.

CARDS.—(For forms and models of different cards, see under INVITATIONS, CARDS, ETC.,—Index).

Calling or Visiting Cards have nothing upon them but the name and address of the caller, in small script or card text.

When calling, etiquette requires that a card be sent up.

A card is left, in the absence of the lady of the house.

When there are two or more ladies, the turning down of one corner of the card signifies that the call is for the family.

When cards are left preparatory to leaving town, the initials P.P.C. (Presents parting compliments) must be written in the left-hand corner.

In calling upon friends at a boarding house or hotel, write their names above your own on the card, to insure proper delivery.

Have cards in readiness at every call.

Cards sent during the illness of any member of the family to whom they are sent, should be accompanied by verbal inquiries regarding the patient's health. Apply same rule to survivors in sending cards of condolence.

When a death is known, cards may be sent immediately, but visits of condolence not made till within the following week.

Cards may be left or sent the day after a ball or large evening party.

After a small social gathering or dinner party, cards must be left the following week.

A gentleman's card bears his address on the right-hand corner.

CARRIAGE.—Always enter a carriage with your back toward the seat you occupy, thus avoiding the necessity of turning round in the carriage.

In leaving a carriage the gentleman must go first, even though compelled to cross the carriage and disturb the lady, that he may assist her to alight. When a man-servant is present, he must hold open the carriage door and lower the steps, but not assist the lady in alighting, except in the absence of the gentleman.

The gentleman, not the lady, gives all orders to the coachman.

A lap or carriage robe should be carried, to cover the skirt of a lady's dress, to protect from dust or mud. The lady should be provided with a shawl, parasol, and fan.

The gentleman sits on the right-hand seat when driving, and must accommodate the pace of the horses to the wishes of the lady.

A friend taken into a carriage when out driving, must be taken to his destination.

When driving with a lady, it is impertinent for a gentleman to put his arm across the back of the seat.

If a lady leave a carriage, and the gentleman remain in it till her return, he must alight to assist her out, also when she returns.

During the ordinary course of a drive, a lady should resign herself to the province of the driver, and should she not approve of his manner or skill, need not drive with him again.

The seat on the right hand, facing the horses, is the seat of honor, and is reserved for a lady, an elderly gentleman, or guest. The seat facing the horses is for ladies, and no gentleman must sit beside the lady, except from invitation.

CHAIRS.—It is a breach of etiquette to turn your chair so as to bring your back to some one seated near you.

When calling, a gentleman may take any vacant chair, without troubling the hostess.

A gentleman rises upon the entrance of ladies, but does not offer his chair, except in his own house, when others are available.

CHASTITY.—A large portion of the sorrow and suffering of the world arises from the want of chastity in thought, speech, and behavior. Characters are ruined, homes made desolate, and fond hearts broken, by neglecting to preserve that purity of heart, of which a little child is the type.

CHEWING GUM.—Aside from the physical injuries arising from the incessant chewing of gum, it is in bad taste to see persons in school, or elsewhere, with their mouths full of gum or wax, apparent in laborious exercise. On the street, such rumination is very unbecoming; if observed carefully, serious doubts arise as to whether the ruminant is a lady or not.

CHILDREN.—Never speak of your own children as "Master." and "Miss" except to servants, but give them, unless married, their Christian name only, or say "my daughter," or "my son."

Among a child's first words should be "please," "thank you," "yes ma'am," "no ma'am," "what, ma'am," and "what, sir?"

A child should not be allowed to leave the table without asking to be excused.

Never permit little boys to keep on their hats while in the house.

Teach children to be polite and gen-

erous to their little visitors, and when "half" will not do, to give up "all" of anything.

When addressed with "good morning" or other salutation, teach them what to say, that they may not stand staring at any one. If taught to say "very well, thank you" in answer to the question, "How do you do?" they will feel no embarrassment in replying.

If they cause inconvenience to others, teach them to say "I am sorry," till old enough to say "Excuse me."

Teach a child that it is both rude and naughty to contradict, and, when told to do anything, to say "what for," and "why."

Children should be taught that it is rude to yawn without trying to suppress it; to whistle or hum in the presence of older persons, or to play with anything at the table.

They should not leave the table with food in the mouth; take possession of a seat belonging to another without vacating upon his return; or to leave any one without saying "good-bye."

Teasing should not be allowed; too great inquisitiveness should be checked, and meddling with things ought not to be permitted.

CLOWN.—No gentleman will so far imitate a vulgar clown as to slap a friend on the back, clapping his hand upon the shoulder, poke him in the ribs, or to shout "Halloo, old boy."

CHURCH.—Be punctual in attendance so as not to interrupt the congregation.

Gentlemen remove their hats at the door, and enter quietly and reverentially.

Strangers wait in vestibule for ushers to show them a seat. Never enter a pew without invitation or permission.

If unfamiliar with the forms of worship, rise, kneel, and sit, as you see others do.

Provide books, find the place and point it out to strangers.

When books or fans are offered, accept or refuse with a silent bow.

A gentleman and lady pass up the aisle together, when the gentleman steps aside, allowing the lady to enter the pew first.

Whispering, laughing, staring, or making noise with feet or fingers, should be avoided.

Bow not, nor recognize a friend while in the church; greetings may be exchanged in the vestibule after service.

Pay no attention to rude or noisy persons around you.

If a stranger enters unseen by the ushers, open the door or rise and motion to him.

In attending a Roman Catholic Church, the gentleman accompanying a lady, may, with ungloved hand, offer her the holy water.

A lady does not remove her gloves in church, except to use the holy water, or at communion.

At a christening the godmother accompanies the family of her little godchild to and from church, sending her gift (usually a silver cup) the day before.

In attending a funeral, do not leave the pew till the mourners have passed into the aisle, standing while they pass, falling into your proper place as the procession passes.

Upon conclusion of the service, make your departure silently, exchanging, in a quiet manner, greetings in the vestibule.

CIVILITY.—Shakspeare says "Whilst thou livest, keep a good tongue in thy head."

Tillotson remarks "A good word is an easy obligation; but not to speak ill, requires only our silence, which costs us nothing."

CLAPPING OF HANDS.—In conversation, never, however much you may be pleased with any remark, cry out "Bravo!" clap your hands, or permit any gesture, silent or otherwise, to mark your appreciation of it. A quiet expression of pleasure, or a smile, will show your sense of the fitness of the remark.

In a concert hall or lecture room, it is allowable to clap the hands. (See Approbation.)

CLEANLINESS.—So great is the effect of cleanliness upon man, that it extends even to his moral character. Virtue never dwells long with filth, nor is the preservation of health and comfort possible with it. No one has a right to offend the sensibilities of any one by neglecting this particular.

CLOTHES.—Dirty collars, wristbands, and shirt fronts are intolerable. If grease spots are seen upon the clothing, it indicates a great lack of neatness in the wearer. A clean handkerchief is one of the prime evidences of gentility. Boots and shoes not kept clean, show that their owners are lacking in good taste.

COLORS.—The brunette's colors are scarlet, orange, and yellow, par excellence, but glossy black and white also become her. A tasteful brune will have a scarlet blossom deftly twisted in her hair, or an orange knot at her throat.

Sallow complexions are improved by dark green, or red. A creamy complexion is set off by a reflection of yellow.

A dark violet, shading off into lilac or blue, charms the golden-haired blonde. Either light or dark shades of green look well with the ruddy face of the blonde. The very light blonde is exquisite in a dress of pale Nile green. In short, there is little, except bright red, that a blonde cannot wear.

COMMISSION.—When entrusted with a commission, do not fail to perform it. It is rude to "forget."

COMMENT.—Do not be guilty of rude comment on what has been said, by such remarks as "yes, you mean so and so." Never supply words over which your companion may hesitate a moment.

COMPANY.—For a lady to intimate to a gentleman that she would be pleased to have him escort her to any public entertainment, is one of the rudest breaches of politeness. Such conduct would place her under a very unpleasant sense of obligation, and may be the cause of much embarrassment to the gentleman.

Should a lady decline an offer, she should not mention it under any circumstances, as this would be adding an insult to the refusal.

COMPLEXION.—To obtain the best possible complexion, rise early, form regular habits, diet yourself carefully, practice absolute cleanliness, exercise freely in the open air—wearing broad-brimmed hats in the sun and veils in the wind, avoid washing the face when heated from exercise, and bathe the face in soft water. (See Colors).

COMPLIMENT.—A compliment that is palpably insincere is no compliment at all.

CONDUCT IN CHURCH.—It is our duty to take part in the services, if we can do so conscientiously. It is gross rudeness to express any marks of disapprobation by laughing or talking. Reading papers or books is disrespectful. Never leave before the close of the services, except from sickness or an imperative call. If a lady, refuse to be escorted by one who waits outside for your appearance. (See CHURCH).

CONTENTION.—(Washington's maxim). If two contend together, take not the part of either unconstrained, and be not obstinate in your opinion; of things indifferent be of the major side.

CONTRADICTION.—It is a gross violation of etiquette to contradict any one.

CONVERSATION.—One who engrosses the conversation is unpardonably selfish.

Always appear pleased, though 'tis an oft-told story, and the speaker is an inveterate proser; in short, sacrifice sincerity as good manners and feelings dictate.

Let the face be pleasant, look at the person directly, and listen attentively.

In answering, express your thoughts in the best manner, avoiding a loose manner.

You can best speak to the point by "thinking twice before speaking once."

Good and clear Saxon language, simple and terse, is preferable to high-sounding phrases and long words.

Avoid conversational extravagance, using the word that will express your precise meaning and no more.

Avoid awkwardness of attitude and of speech, a continuous lolling, gesticulating, and fidgeting.

In conversing with a person, do not repeat the name frequently, nor with a titled person, the title.

Address a foreigner by his full name; in speaking of him, use his title.

Married people should avoid the vulgar habit of speaking of each other by the initial letter of the first name, or the wife of her husband as "Smith;" omitting the "Mr." This denotes very ill breeding.

Flippancy is as objectionable as the perpetual smile, the vacant stare, the wandering eye, and the half-open mouth.

To skillfully adapt one's conversation to the hearers, is the secret of talking well.

Converse not on private affairs, nor drop the voice to a whisper, in a tete-a-tete conversation.

Never hide the lips with the hand or a fan, and avoid long conversations in society with the members of your own family.

After the entrance of visitors, explain the import of any previous conversation.

CORRECTION OF SPEECH.—Never presume to correct the pronunciation or false syntax of those whom you meet in company.

COUGHING.—Coughing, clearing of the throat, blowing the nose, or spitting upon the floor, while at the table, deserves the severest censure. Leave the table for such purposes, or apply the napkin to the face and turn the head from the table.

When coughing is unavoidable, refrain from society for the time being.

COUNTENANCE.—As a rule, intelligence, gentleness, and kindness, are distinguished from ignorance, coarseness, and brutality, by an inspection of the countenance. Habits of mind are stamped upon the face. The heart and mind educate the features to express what they suggest.

Your countenance should be pleasant, but in serious matters somewhat grave.

COURAGE.—Physical courage finds its highest type in the bull-dog; moral courage, in a person who suffers martyrdom rather than sacrifice his love of right and conscientious convictions of truth.

Have courage to do right, hence,
"We may have courage, all of us,
To start at honor's call,
To meet a foe, protect a friend,
Or face a cannon ball."

COURTESY.—A due regard should be paid to the little courtesies and elegances. These should never be neglected when associating with the opposite sex.

Strangers entering a community either to visit or to make a home, politeness requires that those desiring to make their acquaintance shall manifest their disposition to be sociable, by giving them a first call.

COURTSHIP.—The best and only reliable counsellors at this crisis of a young man's or young woman's life are feeling and good sense.

No sensible man will intrude himself upon the presence of a lady, nor will a modest woman receive the attentions of a man too eagerly.

A woman of tact will let a gentleman see that his attentions are not disagreeable to her without actually encouraging him. It is equally possible for a man to be quite devoid without becoming a lover.

To trifle with the affections is exceedingly dishonorable, and if a woman is not a downright coquette, a man of sense should be able to judge whether his proposal will be favorably received or not.

COVETOUSNESS.—Unlawful cravings are more likely to affect the mind, and engage the fancy, than those that are right, and thus we are enticed into unlawful actions.

"Thou shalt not covet thy neighbor's house, thou shalt not covet thy neighbor's wife, nor his manservant, nor his maidservant, nor his ox, nor his ass, nor anything that is thy neighbor's."

COWARDICE.—If a young man refuse to join in robbing an orchard, if he is unwilling to drink intoxicating liquor, or if he decline to violate a law of society, he may be stigmatized by those devoid of moral principle, as a coward, and his refusal imputed to dishonorable fear, and thus driven to do what his conscience condemns, because he dreads that others will not think him brave. Such fear is the greatest and basest cowardice.

CUP AND SAUCER.—Formerly the tea or coffee was poured into the saucer to facilitate its cooling, and then drank from the saucer. Now, however, politeness requires us to drink from the cup, after having removed the spoon to the saucer.

DEFORMITY.—To notice in any way a deformity or misfortune to the figure of any one, is gross and unfeeling. To speak of them is the height of rudeness.

DEPARTURE.—It is a breach of etiquette for a caller to preface his or her departure by remarking "Now I must go," or insinuating that the hostess is weary of the visitor.

Upon taking one's departure, it is expected that some acknowledgement be made of the pleasure that has been afforded one.

DANCING.—(For form of invitation, see under Invitations—Index).

An invitation to a ball signifies that the entertainment is exclusively for dancing, and should be delivered by a messenger at least two weeks before an entertainment, the reply being due immediately.

A pleasant ball requires good rooms, good music, and plenty of good company.

The supper, to be enjoyable, must be well served, and abundant in quantity.

A refreshment room, a dressing room for the ladies, and one for the gentlemen, should be provided.

Ladies attend in elegant and elaborate dress, and gentlemen appear in full evening dress.

A suitable room for dancing is nearly square—rather longer than wide. The top of a ball-room is the part nearest the orchestra.

In a private house tightly stretch a good Holland floor-cloth over the carpet.

Abundance of light and good ventilation are ball-room requirements.

ETIQUETTE OF BALLS AND PARTIES.

A hostess should provide good musicians to play for her guests. It is customary to provide three pieces for dancing: a piano and two violins, or piano, cornet and violin.

The ladies' toilet should be well supplied with mirrors, pins, needles and thread, and plenty of attendants to assist at the toilets.

The supper hour is usually from 12 to 1 o'clock, and the hour of departing from 2 to 3 A.M.

A home-made supper consisting of coffee and sandwiches, with fruit, and two or three kinds of ices and cake, is all-sufficient.

No one sits down to a ball supper. If seats are ranged around the room for the ladies, the gentlemen stand.

A gentleman who does not dance should not accept an invitation to a ball.

To attempt to dance without a knowledge of the art, is only to make yourself and partner ridiculous.

In round dances, hold the lady's hand at the side; in quadrilles, see technical work for French terms.

While dancing, confine not your observations alone to the weather, or the number of people present, but be as agreeable to the lady as possible.

DESERT.—Before bringing on a desert, see that the table be freed from crumbs by the use of a crumb-pan and brush.

DINNERS.—See Table, also Picnic.

DISAGREEABLE TOPICS.—Do not commence any conversation by the suggestion of painful or disagreeable topics.

DISCUSSION.—When in social company avoid, if possible, all discussion with those with whom you may not agree, especially of politics and religion. If discussion appear distasteful to the company, seize the first opportunity to change the subject.

DISENGAGED.—The disengaged man is irresponsible. His freedom is that of the winds. To his position everything is forgiven. Society has a perpetual welcome for him.—The position of the disengaged young lady is charming. Her beauty, wit, and accomplishments, take her into society only to be courted and admired.

DISHES.—Servants hand the dishes to the left of the guests when passing the courses.

DISPARAGEMENT.—To speak disparagingly of a woman, or criticise women in general, is certain evidence of a depraved nature.

DISPUTES.—(Washington's maxim). In disputes be not so desirous to overcome as not to give liberty to each one to deliver his opinion, and submit to the judgment of the major part, especially if they are the judges of the dispute.

DISRESPECT.—A mother should NEVER allow any disrespect in her children's manners toward herself, nor toward any one older than themselves; they should be taught especially to reverence the aged.

A teacher should NEVER allow pupils to answer her disrespectfully, but have them say "Yes, ma'am," "No, ma'am," "What, ma'am;" never, yes, no, or what.

A teacher should see that no pupil is allowed to treat those of a lower station in life with disrespect.

DISTURBED.—(B. FRANKLIN'S Maxim). Be not disturbed at trifles, or at accidents common or unavoidable, and be temperate in all things.

DOG.—It is a breach of etiquette to take a dog with you when calling, however "dear or interesting!" as no dog can be admitted to the drawing-room.

DOLEFUL.—Speak not of doleful things in time of mirth or at the table, as death or wounds, and if others mention them, change, if you can, the discourse.

DOMESTIC AFFAIRS.—See Business Affairs.

DOOR.—To neglect to close a door on entering or leaving a room, is evidence of great carelessness and indifference to the feelings of others. Should the door be open, however, leave it so, unless otherwise directed.

DREAMS.—Tell your dreams to none except your intimate friends.

DRESS—A neatly dressed person is always well dressed, and ready to appear before another at any moment.

Self-respect requires that a person be well dressed at all times, not spending, however, a larger sum than can be afforded upon dress.

Rich dressing is not the most refined. Simplicity and taste are preferable to display. Elegance and perfection lie in simplicity.

A neglect of dress is as grave a fault as too much regard for it. Young women thus negligent, are deficient in taste and regardless of order.

DRESS, CHILDREN'S.—Dress children well, but avoid display.

MASTER NEAT.

The self-respect and personal pride of boys and girls are increased by good clothes, neatly made and well-fitting.

Except from poverty, never make your son a new suit from his father's old one. Money may be well spent for new cloth. Your boy has pride in appearance as well as yourself, and he should be spared the mortification of appearing in the old and ill-fitting suit.

Do not cultivate vanity, but by all means encourage self-respect

DRESS, GENTLEMEN'S.—A well-dressed man requires neither an extensive nor a varied wardrobe. A different costume for every season and every occasion is needed, but if he be careful to select clothes that are simple and not striking or conspicuous, he may use the same garments over and over again without their being noticed, provided they are suitable to the season and the occasion. A business suit, a frock-suit, a dress suit, and an overcoat, are needed.

MR. DUDE.

A man outrages propriety when he of sixty dresses like him of sixteen; when he wears a showy pattern and extreme in cut; when he dresses either above or below his station; when he dresses in a style inconsistent with his profession or calling, and when his dress is not in keeping with the occasion.

Wear dark trousers for winter. When traveling, in the country, or at the seaside, great laxity of style is permissible.

When in town wear a good hat. A white hat lining is the most excusable foppery for gentlemen to wear. In warm weather a straw hat is as much in keeping with custom as any other.

A gentleman used to be known by his glove, but now, except for ceremonial purposes, and protection from cold, gloves are less favorable.

A light cane, simple in style, may be carried, and an umbrella is always allowable.

The business suit may be regulated by the wearer, but should be neat and substantial.

For morning dress let every article be of the best quality. Except on special occasions, evening dress is, by many, considered an affectation.

Avoid affecting singularity in dress. Expensive dressing is no sign of a gentleman.

Manners do quite as much to set off a suit of clothes as clothes do to set off a graceful person.

The "ruffianly style of dress," or the nonchalant and slouching appearance of the half-unbuttoned vest, and suspenderless pantaloons, are as disgusting and painful as the frippery of the dandy.

When dressed for company, appear as easy and natural as possible. Nothing is more ridiculous than to see a gentleman who is stiff, awkward, and ungainly in a brand-new suit.

DRESS, LADIES'.—The aim of ladies should be simplicity and taste, though great latitude is allowed.

A lady must consider what colors will suit her complexion. (See Colors). Consider size in selecting a dress; stripes running the length of the dress cause one who is short to appear taller, and flounces cause a tall person to appear shorter.

MISS VANITY.

Dresses should be suited to the occasion. In the morning, at home, a loose, flowing dress; and on the street the dress should clear the ground. To see a trailing dress sweeping up the dirt and filth of the street is disgusting.

Whether a hat or bonnet be worn upon the street is a matter of taste. Simplicity, as well void of display or brilliant colors, marks the street dress of the well-bred lady.

The evening dress is governed by the dictates of fashion, which, by the way, is about as changeable as a weathercock. Some neat and dainty costume ought to be worn at home of evenings, for it is then the male members of the family are at home, and visitors are most likely to call.

At home during the day dress neatly, that callers may be received without having to change dress.

In making evening calls, ladies usually wear a hood or light head-wrap easily laid aside.

For balls or soirées the dress may be of the richest and most elaborate description, with elegant jewelry. This, however, is a matter of taste for the lady, who should avoid being over-dressed.

The dress is simple and plain for church, with very little jewelry. Elaborate dress shows disregard for the solemnity of the sanctuary.

Opera dress is rich and full, jewelry according to taste, and head bare. White or tinted kid gloves are worn.

Traveling costume is simple and of quiet colors (not showing dirt). A light display of jewelry may be made. A waterproof cloak, and for summer, a duster, should be carried along.

Consider age in choosing costume, and never dress in the "height of the fashion." Moderation marks good breeding.

To prescribe an exact style of dress for ladies is impossible, as fashions are ever changing.

DRESS, POEM ON.—\O.W.Holmes\.

From little matters let us pass to less,
And lightly touch the mysteries of dress;
The outward forms the inner man reveal,
We guess the pulp before we eat the peel.
One single precept might the whole condense—
Be sure your tailor is a man of sense;
But add a little care, or decent pride,
And always err upon the sober side.
Wear seemly gloves; not black, nor yet too light,
And least of all the pair that once was white.
Have a good hat. The secret of your looks
Lies with the beaver in Canadian brooks.
Virtue may flourish in an old cravat,
But man and nature scorn the shocking hat.
Be shy of breast pins: plain, well-ironed white
With small pearl buttons—two of them in sight,
Is always genuine, while your gems may pass,
Though real diamonds, for ignoble glass.

ECCENTRICITY.— To affect eccentricity of manner, dress, or language, is to attain notoriety by losing the respect and confidence of your neighbors.

EGOTISM.—"Egotism adorns no one," yet it is one of the most common and insidious faults.

To speak much of one's own acts is a phase of egotism, and, as such, is not etiquette.

One's own joys and sorrows, griefs and fears, exploits and experiences may be very interesting to one's own self, but not always to others.

Should the company be desirous of knowing our opinion or advice on any subject, it is our duty to accede to their request, but not to make an exhibition of our learning for the sake of show.

ELBOW.—While eating never put your elbow or hand upon the table.

EMOTION.—Good training manifests itself in the suppression of undue emotion, whether of laughing, anger, mortification, or selfishness in any form.

ENGAGEMENT.—No gentleman may ever break an engagement, whether it be one of pleasure or business, with a lady, or with another gentleman.

ENGAGEMENT, MARRIAGE.—After an engagement is made the GENTLEMAN should be tender and devoted to his bride-elect, treating her family with great respect, but avoiding the taking of liberties to which he is not entitled, until he become a member of the family.

He should play the devoted friend to his betrothed, all her relatives, and conform to the rules of the household, being punctual at all the meals, kind to the children, and courteous to the servants.

His visits may be frequent, but should be short, never compromising the reputation of his future wife by keeping her up till a late hour.

Toward other ladies he should be attentive and gallant, but not to so great an extent as to excite the jealousy of his betrothed.

In general society he should not monopolize the company of his betrothed, but as an escort, accord her the first place of honor, and be watchful of all her wants.

He may send her few or many presents, as she seems disposed to accept them. If costly gifts be objected to, he may keep her supplied with flowers, books, or sweetmeats, according to her taste.

On the LADY'S part, great care and discrimination are necessary. She should refuse rather than encourage the assiduities of others. Levity and coquettishness are in the worst possible taste. A heartless girl who will engage in flirtations at this period, does not deserve the love of a true heart.

On the part of BOTH, affected indifference, or exclusiveness, is in bad taste. Avoid too great freedom, or making displays of affection or fondness. For the lady to parade her conquest, or the gentleman to display slavish devotion, is but to make both ridiculous, and other people uncomfortable.

ENGAGEMENT, BREAKING AN.— It will happen sometimes that an engagement has to be broken off. This is distressing, owing to the sacredness of the tie, and it ought not to be lightly surrendered. The causes may be of family or of pecuniary nature, and sometimes of the mutual unsuitableness of the parties to each other.

If the lover take the initial step, his position is inexpressibly delicate, and should express himself in decided but gentle terms, sparing the feelings of the lady as much as possible.

It is most frequent that engagements are broken off at the wish of the lady, and when she feels that her happiness is compromised, this is certainly a wise though painful course to pursue.

It is best to break off an engagement by letter, accompanying with it any letters, portrait, or gifts received during the period of engagement.

The acknowledgment of the receipt of such letter should be in a tone of dignified resignation, with a similar return of letters, gifts, etc.

ENGAGEMENTS, LONG AND SHORT.— Both are objectionable. The long engagement places the young girl under restraints immediately on her entering life, thus preventing her from moving freely in society, and making her choice as a result of observation. Comment is unnecessary on the short engagement.

ENTERING.—In entering a room, a gentleman takes his hat, cane, and gloves in the left hand, leaving the right for salutation.

Entering a room filled with people, bow slightly to the company in general before addressing individuals.

Entering a room noisily and closing the door with a slam, show a lack of fine sense.

In entering an exhibition or public room where ladies are present, gentlemen should always lift their hats.

ENTERTAINMENT.—When a person is requested to divert the company with instrumental music, a song, or a story, all conversation must be stopped and respectful attention given.

It is rude to offer to entertain the company without invitation.

If one have the ability to sing and play well, and invitation be given, a prompt and graceful response is expected without waiting to be urged.

Performers must not weary the listeners by too long continuance. It is better to err on the safe side by singing too little.

Never request one to play or sing unless you are sure it will be generally agreeable.

If a person decline to exhibit his accomplishments, it is impolite to insist, as there may be good reasons for refusal, and improper to make them known to the company.

ERRORS.—Never correct any slight inaccuracy in statement or fact. Better let it pass than to subject another to the mortification of being corrected in company.

ENVY.— The more one is praised, the more he is envied, and, generally speaking, where envy is, there is little friendship.

EQUIVOCATION.—Avoid all remarks having, or intended to have, an equivocal, or double meaning. Even puns are utterly to be deprecated.

EVENING CALLS.— Evening calls should never be made later than 9 p.m., nor prolonged later than 10 p.m. (See CALLING).

EVENING PARTY.—If the evening party be formal, the host and hostess (and the daughters also, if the invitations included them), keep their places by the entrance door of the parlor during the first and latter portions of the evening, that their guests may easily find them upon entering or leaving the room.

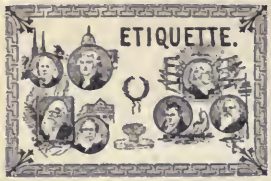
To see a young man devoting himself during a whole evening entirely to one young lady to the ignoring of others, looks extremely ill-bred.

EXCHANGES.—Ladies and gentlemen not nearly related or engaged, may exchange books, flowers, music, and confectionery. Costly presents are out of place.

EXCITEMENT.—Avoid all exhibition of excitement, anger, or impatience when an accident happens.

EXCUSED.—As soon as children are old enough, have them ask to be excused before leaving the table. If they inconvenience others, teach them to say "I am sorry," until old enough to say "Excuse me."

EXPENSES.— Gentlemen, when with ladies, are expected to defray all such expenses as car fares, entrance fee to theatre, refreshments, etc.



EXTREMES.—Extremes of all kinds should be avoided. Though contrary in themselves, they have a like effect. Extreme heat mortifies like extreme cold; extreme love breeds satiety as well as extreme hatred; and too violent rigor tempts chastity as much as too much license.

FACE.—Shakspeare says that all men's faces are true, whatever their hands be.

To see children's faces continually dirty, shows a sad lack of care on the part of the parents.

There is in the face, either a history or a prophecy, which saddens or gladdens every reflecting observer.

A face which is always serene possesses a mysterious and powerful attraction.

Faces are more legible than books, and may be read at a glance.

FAIRS.—When visiting a fancy fair, a gentleman carries his hat in his hand, leaving his head uncovered.

Avoid unfavorable comments on the articles and their prices. Courtesy and words of praise are never more appreciated than by those who have spent weary hours in the preparation of the articles exposed for sale.

Attendants upon fairs must use no importunate entreaties to unwilling friends to purchase articles against their own judgment.

Gentlemen should not ask for change at a church or fancy fair, but say "Pray accept the balance for the object for which you are working." The gift may be accepted with thanks.

Propriety prevents any loud talking, laughing, or flirtation in so public a place.

FALSE PRIDE.—No false pride, or fear of work, or care for ridicule, should ever prevent us from doing our duty. Franklin never lost his dignity or self-respect, even when trundling a wheelbarrow.

FAMILIARITY.—No well-bred girl will permit a boy to be so familiar as to toy with her hands, play with her rings, handle her curls, or encircle her waist with his arm. Such impudent intimacy should not be tolerated for a moment. No gentleman will attempt it.

Avoid undue familiarity with all strangers.

FAMILY.—Members of the same family should never differ in public.

To see a well-regulated family acting as if they were one body informed by one soul, whose interests and hearts are inseparably united, acting in concert, adopting and making each other's cares their own, uniting their friendly beams, and jointly promoting the common happiness, is one of the most beautiful scenes.

FASHION.—

A FASHIONABLE DRESS.

The principle that should actuate one in dressing is neatness and appropriateness. Health, age, comfort, modesty, form, complexion, time, place, and circumstances, are the factors that should determine the fashion.

Nothing should tempt one to impair his or her efficiency for the mere gratification of a perverted taste.

If fashion demand that the hair be injured by any process, the lungs be restricted from their fullest capacity, that the natural growth of the shoulders be contracted, or the spine be given an unnatural curvature, and the feet be made to conform to Chinese fashion, then common sense should assert itself by refusing to obey the tyrannical decree.

All honor is due to the one who has independence and moral courage enough to follow the dictates of wisdom, rather than conform to unreasonable fashions.

FASTIDIOUSNESS.—To exhibit fastidiousness at the table is extremely offensive to good taste. Teach children to eat what is placed before them, and to be not over sensitive and delicate. If anything unpleasant or unsuitable be found in the food, quietly put it aside without attracting attention.

FAULT-FINDING.—Avoid fault-finding, though gentle criticism, when given and received with the proper spirit, is in good taste.

FEET.—The confinement of the feet, and the perspiration caused thereby, make it necessary that they be washed more frequently than other parts of the body.

After the bath is the proper time for paring the toe-nails, as they are then softer and more pliant. This should be done at least once every fortnight. Keep the nails long enough to protect the toes, but not so long as to cut holes in the stockings.

FIDGETING.—It is a breach of etiquette to fidget with the hat, cane, or parasol during a call.

FILIAL OBEDIENCE.—Children are under both a moral and a legal obligation to observe the rules and regulations of their parents as long as they remain inmates of the family, or until they arrive at the legal age of manhood, after which time they should continue to respect the matured reason and the wider experience of their parents.

FIRE.—It is a breach of etiquette during a call, to draw near the fire to warm your hands or feet, unless you are invited by the mistress of the house to do so.

FLATTERY.—If you are flattered, repel it with quiet gravity; you cannot accept it without also accepting the contempt of the person who offers it.

All expressions of flattery to others should be avoided, as it is offensive to any person having delicacy of feeling and refinement.

It is as weak and silly to be overcome by false praise, thus losing all proper estimate of our real worth, as it is base and contemptible to exercise the arts of a flatterer by spreading a net for an unwary victim.

If it be trying to the feelings to accept advice, knowing it to be prompted by kindness, it is harder to receive rebuke patiently, knowing it to be deserved.

"Faithful are the wounds of a friend; but the kisses of an enemy are deceitful."

FLIPPANCY.—The perpetual smile, the wandering eye, the half-open mouth, and the vacant state, are no stronger evidences of ill-breeding than flippancy.

FLIRTATION.—What we find the least of in flirtation is love.

When flirting has any other object than that of true courtship, it is a species of high-handed fraud upon an unsuspecting heart, worthy of the heaviest penalty of public opinion.

Who steals money steals trash, but who steals affections without a similar return of affections, steals that which is more precious than wealth, and ranks among thieves, robbers, villains, and murderers.

FLOWERS.—Flowers tastefully arranged, add much to the beauty of the table.

A bouquet is the best ornament of girlish beauty; the meetest offering from young and timid love, and is linked with all the finer sympathies of our nature.

Flowers appropriately deck the chamber of old age, and are the last sad gift of sorrow to the dead.

If a lady wear a profusion of flowers about her person, a gentleman must be content with a very small bouquet, a single flower being in good taste.

FOOD.—Children should be taught that leaving the table with food in the mouth is a rudeness.

If anything unpleasant or unsuitable be found in the food, quietly put it aside without attracting attention.

Avoid abuse and excess, as there is sure to follow a period of suffering in mind and body, either in sickness, ill temper, or vicious inclinations, or all of them at once.

FOREIGN CUSTOMS.—In conversing with foreigners do not disparage any of their national customs, even if they are rude enough to attack yours. You may pleasantly and frankly defend the institutions of your native land, but not by comparison with the customs of any other country or people.

FOREIGN LANGUAGE.—Avoid talking to any one person in the presence of others in a language not understood except by the two persons using it, unless addressing a foreigner in his own tongue, and then others should be made aware of the subjects discussed.

Avoid interlarding your conversation with scraps of foreign language.

FORGETFULNESS.—Forgetfulness is not a sufficient excuse for neglect in performing a commission for a member of one's family or a friend.

FORGIVENESS.—It not being possible to live peaceably with all men, owing to the weakness of human nature, the infirmities of mind, the peculiarities of temper, and the want of proper training, it becomes necessary to make amends in lieu thereof. This is done through forgiveness.

What shall we do with those who violate our rights? It was said ages ago "If thy brother trespass against thee, rebuke him; if he repent, forgive him. And if he trespass against thee seven times in a day, and seven times in a day turn again to thee, saying, I repent, thou shalt forgive him."

FRIVOLITY.—To make a careless or frivolous reply to a serious remark or question is sure to injure.

FREEDOM.—In all your associations, it is well to keep in mind the adage "too much freedom breeds contempt."

FUNERAL.—Immediately after death, some intimate friend or relative, acting under instructions from the family, should take entire charge of the arrangements.

Accord the expenses with the means of the family—permitting no false pride to incur undue expense, yet letting affection dictate, as far as possible, what marks of respect should be paid the memory of the dead.

If notes of invitation to the funeral be sent to friends, print neatly and simply on mourning paper, with envelopes to match, and deliver by messenger. (For forms, see under Invitations, etc., Index).

If the funeral be at the house, some friend or near relative should act as usher, and show the company to their seats. (See Church).

Preserve decorous silence in the chamber of death—speak as little as possible, and then only in low, subdued tones.

The members of the family need not recognize their acquaintances.

Gentlemen outside remove their hats as the coffin is borne to the hearse.

The pall-bearers are chosen from among the intimate friends of the deceased.

Send flowers at the wish of the family.

FURNITURE.—It is a breach of etiquette to walk around the room when waiting for your hostess, examining the furniture and pictures.

GAIT.—The impressions we receive from seeing a stranger walk are not without their significance.

A gentleman never puts on a pompous manner, nor does a lady ever strut.

Make the style of walking easy and graceful, turning the toes slightly outward, and making the steps firm, decided, and moderately long.

If a slouching, irregular, and unsteady gait be ungraceful, a mincing, wriggling, affected style is ridiculous.

Dr. Dio Lewis says, "Whoever carries the chin close to the neck is all right from top to toe, and will walk well."

When walking, inhale through the nose, and keep the mouth closed.

GALLANTRY.—Respect for woman is a distinguishing feature of civilized life, and he who degrades or depresses her, treating her like a beast of burden, or making her entirely dependent upon himself, loses the marks of a civilian, and ranks himself with the lowest forms of civilization, bordering on, and dwelling with barbarism.

Woman should be recognized as the equal of man, socially, religiously, intellectually, and as a councellor. Her claims to the best education must be respected.

GAMBLING.—One who is unwilling to engage in any honest employment, is fond of social excitement, and secures his living without any visible means of support, tallies with the description of a gambler, and should be kept under the ban of suspicion.

The only absolute safeguard for one who has any inclination toward questionable resorts and practices, is to make an iron-clad resolution to taste not, see not, smell not, hear not, and feel not anything that relates to the temptations of the gambling hell.

GENEROSITY.—Teach children, when quite young, to be generous and polite to their little visitors, and when half will not do, to give up all of anything.

True generosity is a duty as indispensably necessary as any imposed upon us by the law.

Generosity is the flower of justice; it makes any one lovable, and is more charitable than wealth.

GENTILITY.—Gentility is not in birth, or manner, or fashion—it is in the mind. The essential and distinguishing characteristics of a gentleman are—a high sense of honor—a determination never to take a mean advantage of another—and an adherence to truth, delicacy, and politeness toward those with whom he may have dealings.

GESTICULATION.—Avoid all gesticulations; declamation is not conversation.

GIFTS.—It is ill-bred to refer to gifts one has himself made, or favors he has granted.

The art of giving and receiving presents is not always an intuition. A generous person may unwittingly wound where he intends to please, while a really grateful person may, by want of tact, appear to deprecate the liberality of his friends.

Besides its price, a gift should always be valuable for something else. It may have been brought by the giver from some famous place; it may have a valuable association with genius, or it may be unique in its workmanship. An author may offer his book or an artist his sketch, and any one may offer flowers, which are always a delicate and unexceptionable gift.

GIGGLING.—Avoid all loud laughing or giggling; it is excessively bad taste.

Do not interrupt yourself by laughing at what you are about to say.

GLASS.—A glass should be held by the stem, and not by the bowl.

GLOVES.—If one has on gloves, they should be removed at once upon being seated at the table.

Of the gentlemen who wear gloves, many advocate the drawing off of the right-hand glove before shaking hands with any one, especially a lady who is ungloved.

It is a breach of etiquette to remove the gloves when making formal calls.

To offer a partner in a dance an ungloved hand is disrespectful. White gloves befit the ball-room. They should be faultless as to fit, and never removed from the hands while in the ball-room.

In mourning plain white gloves may be used, or they may be sewn with black.

A gentleman's gloves should be white, not straw-color or lavender.

GOING OUT.—For persons to leave church before the close of the services, unless from sickness or to obey some imperative call, is rude and disrespectful to the place of worship.

For young men to get up and leave the room during the intervals between the acts or parts in a programe while a concert or other entertainment is being given, is in very bad taste.

GOSSIP.—Tale-bearers are as bad as tale-makers. Because everybody say it, it is not necessarily true. Read books of worth and half of society gossip will perish.

Where lies are easily admitted, the father of lies will not be excluded.

The following poem fits just here:

"Said Gossip One to Gossip Two,
While shopping in the town,
'One Mrs. Pry to me remarked,
Smith bought his goods of Brown.'

"Says Gossip Two to Gossip Three,
Who cast her eyelids down,
'I've heard it said to-day, my friend,
Smith got his goods from Brown.'

"Says Gossip Three to Gossip Four,
With something of a frown,
'I've heard strange news—what do you think?
Smith took his goods from Brown.'

"Says Gossip Four to Gossip Five,
Who blazed it round the town,
'I've heard to-day such shocking news—
Smith stole his goods from Brown.'

GOOD ADDRESS.—No stock-in-trade pays a business man so well as a good address.

GOOD BREEDING.—Wisdom, valor, justice, and learning, cannot keep a man in countenance that is possessed with these excellences, if he want that inferior art of life and behavior called good-breeding.

Good-breeding befits our behavior to the three ranks of men—our superiors, our equals, and our inferiors.

To the ordinary eye, good-breeding shows itself the most where it appears the least.

Good-breeding covers a multitude of faults, supplies the want of some virtues, and keeps both wits and fools within the bounds of decency.

GOOD-BYE.—Children should be taught that it is rude to leave any one without saying "good-bye."

GOOD MANNERS.—Good manners, unlike fine clothes, are not to be put on for particular occasions, but are to be one's second nature.

GOOD MORNING.—Teach children to say "good morning" and "good night."

If pupils at school would take pains to bid their teacher "good morning" and "good night," they would appear well in so doing, and easily give pleasure to another.

GOOD NATURE.—Good nature is the product of right reason, and will give allowance to the failings of others, by considering that there is nothing perfect in mankind.

Good nature being the beauty of the mind, will win almost without anything else, and sometimes in spite of positive deficiencies.

So far as happiness is concerned, good nature is worth more than knowledge, money, or honor, to the one possessing it.

GOODNESS.—Goodness implies the doing of good to others, and is always the road to what is true.

One who is good only that others may know it, is one from whom much service cannot be expected.

Only he who desires continually to bear the inspection of good men, is entitled to be called truly good.

GOOD SOCIETY.—"Tell me the company you keep, and I'll tell you what you are."

GRATITUDE.—The being and appearing grateful cannot be too highly esteemed.

True gratitude is never a secret desire to receive greater benefits.

GUESTS.—Be not a guest the first day, a burden the second, and a pest the third.

At the table guests are seated by the entertainer in such a manner as to secure the most pleasant and agreeable intercourse among all the members.

GUILT.—Though one bear himself valiantingly in the hour of prosperous villany, proofs enough have existed of the fears of guilt, when the hour of calamity approaches.

Guilt distorts all the faculties of the mind, leaving a man no longer in the free use of his reason, and has very quick ears to an accusation.

HABITS.—Virtue has its birth in good habits, the formation of which may be said to constitute almost the whole work of education; which certainly begins early in a child's life.

Bad habits are the fruits of wrong actions, and wrong actions are always a violation of moral principles. The fact that one is unable to break a habit is no excuse for the wrong. A continuance of wrong never leads to the right.

Precepts may be useful, but practice and imitation go far beyond them, hence, the importance of watching early habits, that they may be free from what is objectionable.

HAIR.—As a matter of convenience and cleanliness, gentlemen should keep their hair cut short. Short hair for ladies is neither convenient, healthful, nor comfortable.

Thoroughly brush every morning to remove scalp impurities, occasionally wash in soft water, dissolved in which is a little common salt, and then comb and dry.

Avoid the use of all pomatums, or oils, as they retain the dust upon the head. The natural oil of the hair is sufficient to preserve its glossiness.

Occasionally the hair may be cleansed with a mixture of glycerine and lime juice.

The attempt to change the color of the hair by means of dyes and fluids, indicates a senseless desire for fashion, and an unladylike desire to attract attention.

The use of hair dyes, and false hair, is almost as much to be condemned as painted cheeks and pencilled brows.

Long hair for a gentleman does not constitute genius, and he should be careful how he draws ridicule upon himself by adopting it.

HANDKERCHIEF.—The handkerchief, like the hairbrush, toothbrush, and tooth pick, is designed exclusively for the use of its owner, and should never be offered to another, except to wipe mud from clothing, or some such purpose.

A dirty handkerchief reflects upon its possessor.

HANDLE.—In offering any tool, instrument, or vessel, to another, care should be taken that it be presented in such a manner that he may seize it by the handle.

HANDS.—Keep the hands scrupulously clean by frequent washing.

For chapped hands, rub a few drops of honey over them when dry, or anoint them with cold cream or glycerine just before retiring.

Cut the nails twice a week, after washing, and keep scrupulously clean. Never scrape the nails with a view of polishing the surface, as they are thereby caused to wrinkle.

HANDWRITING.—Character, as well as nationality, is seen in handwriting. The Englishman, Frenchman, Italian, etc., each write the peculiar style of his country.

A scrawling signature draws upon a person the ridicule of being a shallow pretender.

HASTE.—Haste and harshness are too often storms and tempests, breaking and wrecking business.

HAT.—As a mark of respect, a habit should be formed of removing the hat on entering a private house, a public parlor, or church.

Gentlemen lift their hats when passing ladies who are strangers, on staircases, in corridors, and on entering public rooms.

A lady should never ask a gentleman when calling to take his hat.

Little boys should never be allowed to keep their hats on in the house.

A gentleman stopping to speak to a lady on the street, must hold his hat in his hand during the interview, unless she request him to replace it.

It is ill-bred for a gentleman to sit or stand with his hat on while in the house.

A gentleman in passing a lady, and where it is necessary to stand aside for her to pass, must remove his hat and incline his head slightly.

In restaurants unprovided with hathooks, gentlemen are allowed to eat with their hats on.

Always take off your hat when handing a lady to her carriage, or the box of a theatre, or a public room.

In entering an exhibition or a public room where ladies are present, gentlemen should lift their hats.

HATRED.—Hatred is the opposite of love. The natural inclinations being quick to indulge in retaliation for injuries received, we should consider that when our hatred is too bitter, it places us below those whom we hate.

It is instinctive in a generous heart to shrink from an inveterate hater as a child shrinks from a snake in his path.

HAUGHTINESS.—A haughty person is always the victim of his own rash conclusions.

HEAD.—It is a breach of etiquette to scratch your head, pick your nose, pare your nails, pick your teeth, or do anything disagreeable in company.

HEALTH.—If the flat-skulled Indian, the small-footed Chinese, and perforated-ear and lip savage, who have never heard that the body is a temple for the spirit, whose perfect beauty consists in its fullest development of health, strength and natural growth, be excused on the ground of ignorance, what is the excuse of the tapering-waisted Caucasian?

HEART.—By "purity in heart" is meant chastity of speech, and modesty of conduct, as fruits of the purity of the mind.

From the want of chastity of speech, thought, and behavior, arises a large portion of the sorrow and suffering of the world.

Right principles lead to right actions, and right actions, constantly performed, make the habitually virtuous man or woman.

HELP.—Ever be ready to lend a helping hand to those needing your assistance. A little act of kindness is often of inestimable value.

HEROISM.—Heroism may be said to be the triumph of the mind over fear—fear of poverty, of suffering, of calumny, of sickness, of isolation, and of death.

Without heroism there can be no serious piety, or concentration of courage.

HOIDEN.—A rude, rough, romping girl, unrestrained by the rules of polite society, and continually planning and performing unmaidenly actions, is designated a hoiden.

Such a character can hardly win commendation, admiration, or respect, and can never be regarded with that high esteem which arises from confidence in modesty and reliance upon good sense.

HOME.—No lady, be she ever so gifted, can afford to neglect her household. She may possess wealth, and hire an efficient housekeeper, but the final responsibility rests upon herself.

The personality of the mistress of the house, pervades its atmosphere. If the servants be cheerful, the children obedient and courteous, the rooms tastefully furnished and spotlessly neat and clean, and peace and contentment the household gods, the ruler of the house is good and efficient.

For a woman to talk of her servants, or her dinner arrangements to her visitors in the drawing-room, or to her husband in the privacy of the domestic circle, shows ill-breeding.

A house may have the appearance of refinement without any great expense, if good taste be exercised in its arrangement. Furnish the rooms with an artistic eye for colors, and a careful eye for comfort.

Though elegance may add greatly to the enjoyment of life, if it be purchased at the expense of all peace of mind, better do without it.

A body without a soul is no more destitute than a house without books. Though you may not be able to have a whole library, no one is so poor as not to be possessed of a few well-chosen works.

A yard with a few ornamental and tasteful thorns and ferns need not be expensive, yet they add greatly to the beauty of the premises.

If it be the duty of woman to enlarge her views, cultivate her mind, and improve her social position, she must not forget that "home" is first and forever her special heritage.

That a woman inspires a son or a brother with respect and affection while at home, is the worthiest sentiment that can be uttered in her praise, and that a young man is a tender, devoted son and brother, is his highest compliment.

HONESTY.—Loss is preferable to dishonest gain; if the former vex you for a time, the latter brings lasting remorse.

The following is one of the maxims of Washington: "I hope I shall always possess firmness and virtue enough to maintain, what I consider the most enviable of all titles, the character of an "honest man."

Whoever praises what he means to purchase, and enumerates the faults of what he intends to sell, may set up a partnership with honesty.

HONOR.—Too often school children at school will engage in the practice of cheating, while elsewhere they will scorn to steal or lie.

Too often a business man will resort to deceit and trickery because his competitors do the same.

HOSPITALITY.—If you accept favors and hospitalities, never fail to return the same when opportunity offers.

Hume says that in company, you need not ask who is the master of the feast. The man who sits in the lowest place, and who is always industrious in helping every one, is certainly the man.

HOSTESS.—It is a breach of etiquette for the hostess to leave the room while visitors are present.

A ready wit and a merry laugh are great aids to a hostess in entertaining a dinner party.

She should adroitly start the conversation for her guests at the table, and by well-directed remarks assist the diffident and remind the selfish glutton.

In manner the hostess should present a simple dignity and equal interest in all her guests.

A hostess must never reprove a servant before guests, nor let any accident disturb, or disappointment embarrass her.

HOTEL.—In going to meals wait at the dining-room door for the usher to escort you to the table.

A lady thanks any gentleman at the table for a civility, but must not start a conversation with him.

Ladies never go alone to supper after 10 o'clock; in the absence of an escort the meal is sent to her room.

Ladies should have their purse and jewelry placed in the hotel safe, and ring for them when needed.

Dress appropriate to the hour of the day, in least conspicuous apparel. A full dress is required when with escort.

Avoid boisterous conduct, the use of the piano, and singing, unless invited, and the opening of windows in parlors, if others are sitting near.

When calling for a hack, ring for a servant and give him your order.

A lady may look over a paper at the table, but never a novel.

It is ill-bred to stand alone or linger in the hall or any other conspicuous place.

Baggage being packed, ring for the porter, who will strap your trunk, and with sachels, remove to hack.

HUMANITY.—That man should treat his faithful servants, the lower animals, with anything save the greatest kindness seems to be unreasonable: and yet, alas! it is often true.

Neglect and abuse not only injure the pecuniary value of an animal, but also the moral constitution of the man.

Animals killed for food should not be tortured or hurt, but dispatched in the speediest manner, and with the least pain.

To witness the spirit of wantonness frequently manifested by men and boys in the destruction of little singing birds, is pitiable in the extreme.

That men, other than the ignorant, uncultivated, and brutal, should find a special delight in encounters such as are exhibited in the prize-ring, the dog-pit, or cock-pit, is indeed strange, and shows that they still possess that savage instinct of ancient Rome.

HUMILITY.—It is by humility that the highest distinction is reached, because it opens the way to self-improvement. By a study of one's own character, he learns his deficiencies.

One should never assume qualities which he does not possess, nor think too highly of those which he does possess.

HUMOR.—Good humor is one of the best personalities one can possess in society; warm and embracing as the sunshine, it bathes its objects in a genial and abiding light.

HUSBAND.—If a bachelor be not very particular in the choice of his companions, a husband must be. All his former acquaintanceship ends, until he intimates a desire for its renewal. This he may do by letter, or by sending his own and his wife's card.

The husband must remember that his standing in society is very different from that of his bachelorship, and that he has the tastes of another to consult.

Never show a lack of candor by concealing your affairs from your wife, but consider her as the light of your domestic circle, permitting no clouds, however small, to obscure the region over which she presides. Spare your wife all the physical labor you can, and cultivate liberal economy by all means.

HUSBAND AND WIFE.—For a husband and wife to mention each other by the initial letter betrays lack of culture.

Courtesy between husband and wife should not cease with marriage, but continue till death separate them.

The cool indifference which some married persons display toward each other, is as objectionable as the excessive affection of others.

The husband must not forget that his wife is a lady, entitled to all the attention and courtesy lavished upon her before marriage. The wife should so conduct herself that her husband will take delight in treating her thus.

IDLENESS.—Idleness is the source of infinite mischief. One who will not live honestly by his work, will contrive to secure, by dishonest means, a livelihood by his wits.

As a lazy man is necessarily a bad man, so an idle is necessarily a demoralized population.

IGNORANCE.—Avoid talking upon a subject of which you know nothing, unless it be for the purpose of acquiring information. It is common for young men who frequent exhibitions and operas, to imagine they are qualified to judge of art. No mistake is more egregious or universal.

ILL-HUMOR.—Avoid that disposition of mind which arises from an inward consciousness of want of merit, and from a discontent which ever accompanies that envy which foolish vanity engenders.

IMAGINATION.—Conscious that there are persons with whom we must not associate, places where we dare not go, and things which we should neither see nor know, if we would preserve our purity and self-respect, we must not let our imaginations carry us to the forbidden places, mingle with the vulgar crowds, or see and hear improper things.

IMPATIENCE.—This quality, which is sudden, eager, and insatiable, grasping at everything, and admitting of no delay, should be carefully guarded against.

IMPARTIALITY.—Whatever may be said in commendation of other gifts bestowed upon us, there is perhaps none more expedient with respect to ourselves than a spirit of impartiality. It is a caution not to be imposed upon by hypocrisy and dissimulation, which we usually exert when scanning the actions and pretensions of other people. It is the best security against the delusion of self-love.

IMPERTINENCE.—Do not countenance premeditated impertinence. Forget it—forgive it—but keep him at a distance who offered it.

Avoid asking impertinent questions out of mere curiosity, as it may not be agreeable for persons to make you their confidants in matters that do not concern your interests.

IMPORTANCE.—Frequently conceited or ill-bred people imagine they make themselves important and powerful by being rude and insulting.

An assumed air of importance will produce an under estimate of one's real worth.

IMPRESSIONS.—To create favorable impressions in the minds of those with whom we have business dealings or social relations, should be our constant endeavor, remembering that it is more difficult to get rid of one bad impression, than it was, previously, to make a dozen good ones.

To be well with a great mind, leave him favorably impressed with yourself; with a little mind, leave him favorably impressed with himself.

IMPOSTURE.—It is a necessary adjunct of imposture to weaken confidence and chill benevolence.

IMPROVIDENCE.—Keeping is always more difficult than getting. A clever man may rise to wealth, and then, for want of sense, tumble head-over-heels to the bottom. Buying unnecessaries soon leads to the selling of necessaries.

IMPUDENCE.—Impudence may ever be regarded as the effect of ignorance. To avoid its imputation, never be ashamed of what you do, and never do what you ought to be ashamed of.

INACCURACIES.—Slight inaccuracies in the statements of others should not be corrected when in company.

INCIVILITY.—Incivility is built on contempt, and is the extreme of pride. Johnson says that a man has no more right to say an uncivil thing, than to act one; no more right to say a rude thing to another, than to knock him down.

INCONVENIENCE.—It is impolite to do anything that occasions any person, especially a servant, unnecessary trouble, inconvenience, or labor, without offering them some special remuneration.

INDELICACY.—This is manifested by an affected purity, which is easily discovered by the language used. Thus to say "limbs" of the table, "bosom" of a chicken, etc., is to pretend a refinement that exposes to ridicule and contempt, and is disgusting to persons of good taste.

INDIVIDUALITY.—Individuality of constitution we have by nature, and individuality of character we may have by achievement. Every one has, by nature, special instruments by which to make himself, and achieve his mission; but, alas! how few there are who do not use borrowed instruments. The greatness of any one depends primarily upon what he has peculiar to himself.

INDULGENCE.—There is no necessary antagonism between the freest indulgence of children and the maintenance of the most absolute authority over them. Indeed, the authority can be most easily established in connection with great liberality of indulgence; while on the other hand, they may be continuously checked and thwarted, and their lives made miserable by a continued succession of vexations, restrictions, and refusals, and yet not be governed at all.

INFLUENCE.—As continual dropping wears away the stones, our acts, although singly their influence may be unfelt, their sum-total leaves an effect upon every subsequent age of humanity.

INGRATITUDE.—An ungrateful man denies that he has received a benefit; he pretends not to have received it, and never returns it. Ingratitude is treason to mankind, and is an offense that is unpardonable.

INJURIES.—Whenever we are the cause of harm or damage to any one's property, reputation, or person, whether accidental or intentional, and being the result evil intentions, recklessness, or indifference, it is our duty to make reparation forthwith.

INNOVATION.—A spirit of innovation is generally the result of a selfish temper and confined views. People will never look forward to posterity who never look back to their ancestors.—Burke.

INQUISITIVENESS.—Children ought to understand that they must not ask too many questions promiscuously, as "What have you there?" "Where are you going?" etc.

INSINCERITY.—If to think one thing and speak another, be shameful and unseemly; to say one thing and do another, or write one thing and think another, is odious.

Insincerity is most disgraceful, and must make all one's enjoyments and concernments seem unreal.

INSOLENCE.—It seems to be the nature of some minds to insult and by tyrannize over little people, which means they use to recompense themselves for their extreme servility.

INSULTS.—Did you ever stop to think that submitting to insults, opens the way to new ones? That one meets with no more respect than he exacts?

It is well to bear in mind that courtesy to, and sympathy with, those we have accidentally injured, ordinarily diminish greatly the amount of reparation required, and sometimes even inspire as much good-will as a benefit conferred.

INSTABILITY.—Be not inconstant, as the morning cloud, the early dew, the smoke in the chimney, or the chaff before the wind.

With some men it is now courteous, then rough; now prodigal, then sordid; one time extremely kind, another, vehemently hating; one day an attorney, the next, a physician.

INTEGRITY.—Young men ought to understand that there is a great deal of room where there is integrity. Great trusts may be sought by scoundrels, but great trusts never seek them. There are occasions where true men are needed, but they are not found in shoals and mud, but alone in pure water.

INTRODUCTION.—Introduce the younger or inferior to the elder or superior. A gentleman always to a lady.

AVOIDABLE

If possible, avoid introductions in public conveyances; if made, however, do so as quietly as possible.

BALLS.

At balls the host or hostess make the introductions; but guests may introduce friends to one another.

At public balls, partners must be introduced to each other. Special introductions may be made by the master of ceremonies, with perfect propriety.

CARE.

In introducing one person to another you assume a sort of social responsibility for the person you introduce, and you should be careful as to whom you give this indorsement.

ENEMIES.

If you are introduced at a friend's house to one with whom you are not on good terms, though he be your bitterest enemy, you must salute him courteously and make no sign of resentment while under your friend's roof.

EVERYBODY.

The custom among certain classes, of introducing their friends or acquaintances to everybody whom they meet, whether at home or abroad, in walking or riding out, is wrong, and antagonistic to the purposes of an introduction.

FOREIGNERS.

In introducing foreigners with titles, always give the title; thus, "Mr. Manning, allow me to introduce my friend Baron Von Schmidt; Baron Von Schmidt, Mr. Manning."

FRIENDS.

A friend visiting at your house must be introduced to all the callers, who continue the acquaintance as long as the friend is your guest. When introduced to a visitor, extend due courtesies.

GENTLEMAN TO LADY.

When introducing a gentleman to a lady bow slightly to the latter, saying, "Miss Wells, allow me to introduce Mr. Brown; Mr. Brown (bowing to him), Miss Wells."

HALF WAY.

When visiting the house of a friend, should you find there a person who seems desirous of making your acquaintance, you may meet his advances half way without impropriety.

IGNORING.

To ignore a person to whom you have been properly introduced is the height of ill-breeding. Though he be not pleasant, he has a claim upon your courtesy, and it is due to your own dignity that you recognize it.

LETTERS.

Letters of introduction are often of great value, but they must be given with caution. Give them only when both parties are your friends.

Introductory letters are left open, that the person presenting them may read if so desired. (For form consult Index).

NAMES.

When introducing members of your family, mention the name. Say "My father, Mr. Hamilton," "My daughter, Miss Hamilton," or "Miss Minnie Hamilton." Introduce your wife as "Mrs. Hamilton."

It is important in introductions, to pronounce the names distinctly.

OBJECTIONABLE.

To introduce to a friend a person who is in any way objectionable, is an insult justifying the loss of friendship.

OPTIONAL.

Unless it be previously ascertained that it would be mutually pleasant, it is not necessary to introduce people meeting at your house on morning calls. If introduced, it is optional with the parties if such acquaintance be continued.

PERMISSION.

Gentlemen should always obtain permission before introducing friends to ladies, which permission should be granted, unless there are very strong reasons for the refusal.

A gentleman should never introduce an acquaintance into the house of a friend without asking and receiving permission to do so.

As a rule gentlemen should not be introduced to each other, until their wishes on the subject are ascertained.

PRESIDENT.

An introduction to the President of the United States is not necessary, excepting that of the master of ceremonies at the receptions. He will receive your card and present you. For private interview, have a member of Congress introduce you.

RELATIVES.

In introducing relatives name the relationship, also the surname of the relative; as, "Mrs. Morton, allow me to introduce my cousin, Mr. Washburn; Mr. Washburn, Mrs. Morton."

If introduced to the relative of your friend, consider that relative as an acquaintance.

SEVERAL TO ONE.

When introducing several persons to one, name the single individual but once, repeating the names of all the others; as, "Mr. Jones, allow me to introduce Mr. and Mrs. Good, Miss White, Mr. Hunter" (bowing slightly to each).

SHAKING HANDS.

Shaking hands after an introduction has taken place is merely optional, not necessary. It is forbidden to an unmarried lady to whom a gentleman is introduced. It is a kindly act of encouragement for an elderly person to shake hands with a young person, after which a few cordial words may be spoken by the elder.

STRANGERS.

When introducing strangers, name the place from which they come; as, "Allow me to introduce to you my friend, Mr. Gordon, from England; Mr. Gordon, Mr. Montgomery."

TITLES.

Distinctly pronounce all titles. "Senator Hill, allow me to introduce to you my friend, the Reverend Doctor Jamison. Dr. Jamison is the rector of St. Paul's Church New York." Then turning to Dr. Jamison, say, "Senator Hill represents the State of Kansas in the Senate of the United States."

TWO GENTLEMEN.

When introducing two gentlemen, look first to the elder or superior, and with a slight bow, say to him, "Mr. Sheil, allow me to introduce to you my friend, Mr. Roads; Mr. Roads, Mr. Shiel."

WITHOUT.

A gentleman offers his services to a lady in need of them, whether he knows her or not. Approaching her, he raises his hat, bows slightly, and asks permission to assist her. Her acceptance does not give the gentleman any claim on her acquaintance, nor oblige her to afterward recognize him without an introduction.

INTERRUPTION.—To interrupt a person when speaking is impolite, except his consent be given. Do not roughly or coarsely deny his statements, and arouse his prejudice, but rather, convince him that he is in error.

Never attempt to assist a person in expressing his ideas by suggesting a word or phrase.

INTRUSIVENESS.—Avoid intruding upon those who appear to be engaged in any conversation which they may be unwilling for you to hear.

Avoid eavesdropping, and make it a secret of your life never to be in the way of others.

INVALID.—It is a breach of etiquette to go to the room of an invalid without being invited.

INVECTIVE.—All invective or personal abuse should be avoided.

IRONY.—Irony may be said to be an insult conveyed in the form of a compliment. Lamb advises the clapping of an extinguisher upon it when you are unhappily blessed with a vein of it.

JEALOUSY.—If jealousy be the offspring of love, the parent must haste to strangle the child, lest the child poison the parent.

JEERING.—Others should not be jeered upon any occasion. Though they may be foolish, consider them unfortunate; if they be vicious, pity them; if they be deformed, understand that it is not in their power to amend.

JESTING.—To mock or jest at a thing of importance, or to break jests that are sharp and biting, should be avoided. If anything witty or pleasant be said, its author must refrain from laughing thereat.

JOKES.—Never play practical jokes, the results frequently being so serious as to entail a life-long regret on the joker. Such fun is usually played upon some one who is weak or credulous, and is not a favorite, and for this reason alone, should not be countenanced.

Etiquette.

JEWELRY.—Well-bred people have no taste for a profusion of rings, pins, charms, chains, and gilt gewgaws. They usually bespeak effeminacy and love of display, yet a little concession in this respect may be made and keep within the limits of good taste.

A watch used as a timepiece is very valuable, but when used as an ornament, is simply vulgar. A man of good taste, besides a watch, will wear as little jewelry as possible, and of the simplest kind. A handsome signet-ring on the little finger of the left hand, a scarf-pin which is neither large, showy, nor intricate, and a light, rather thin watch-guard with a cross-bar, are all that he ought to wear.

In respect to the wearing of jewelry by ladies, there should be a marked distinction between the savage squaw and the enlightened lady. However, jewels are considered an ornament for ladies, and the precious stones should be reserved for their exclusive use.

KEEP COOL.—"Keep cool and you command everybody," said St. Just.

KISSING.—This is one of the four forms of salutation, (q.v.i. Among ladies it is the common mode of salutation, even on the street.

"Millions upon millions of souls have been made happy, while millions upon millions have been plunged into misery and despair by kissing." The preceding are the words of Cockton, which show that there is a serious side to this form of salutation. Is a slight pout of the lips, a soft touch of the cheek, and then a parting of the lips, the "end all" and the "be all" of a kiss?

KNIFE AND FORK.—It is not considered polite to use the knife for any other purpose than cutting the food or spreading the bread with butter. The fork is to be used in lifting the food to the mouth. Use the spoon when the fork will not answer.

To indicate that the course or meal is finished, place the knife and fork parallel on the plate—the handles to the right, that the servant may readily remove them.

KNOCKING.—To avoid intruding upon the privacy of the occupant, always knock or ring before entering a private house or room.

Where people are expected, as at hotels, stores, public offices, and other places of business, it is not necessary that a warning be given by knocking.

LACING.—A good authority on this subject says: "It has been found that the liver, the lungs, and the powers of the stomach have been brought into a diseased state by this most pernicious habit. Loss of bloom, fixed redness of the nose, and irruptions on the skin are among its sad effects."

LADY, FREEDOM OF.—No lady of good breeding will sit sideways on her chair, or with her legs crossed or stretched apart, or hold her chin in her hands, or twirl her watch chain while she is talking.

LADY'S TOILET.—Personal appearance should be the first care of all persons in society. Slovenly or careless habits unfit one for refined society. Well-bred persons always cultivate habits of the most scrupulous neatness. A lady is always well dressed. If the garment be plain or coarse, thin or shiny, it is neat, carefully brushed, and worn with dignity.

Appearance, generally speaking, is an index of character, and the fact that first impressions are usually formed from it, make it of so much moment that no lady can afford to disregard it.

Personal appearance depends greatly on the careful toilet and scrupulous attention to dress. The matter of a strict cleanliness extends to the body, and to all articles of clothing, underwear as well as outer-wear. Perfect neatness is a mark of true gentility, and it is to the toilet that beauty resorts for these purposes.

LANGUAGE.—Though to the feelings there be a strong temptation to repeat the vulgar story, to recite the lascivious verse, or to tell the smutty joke, impure or unchaste language should never pollute the lips.

If people be possessed of any culture, if laugh they will, at the witty play upon words, or other grosser kinds of speech, they will at heart despise the author of their merriment.

LAST PIECE.—One should not fear to take the last piece on the dish when offered it. It would be more uncivil to refuse it than to take it.

LAUGHING.—As a rule, the ruder the people are, the louder and coarser will be their expressions of enjoyment.

Laughing is perhaps the most salutary of all the bodily movements, and if there is anything to enjoy that is worthy of a laugh, do not simper, but laugh heartily; remembering that uproarious, boisterous mirth is exceedingly vulgar.

LAXITY.—"The most contemptible character in the world is the one which, without energy to be vicious, sophisticates in favor of vice."—Haydon.

LAZINESS.—"A life of laziness and a life of leisure are two things. Many, without labor, would live by their wits only, but they break for want of stock. Laziness travels so slowly that poverty soon overtakes him."—B. Franklin.

LEAVING.—To rise to leave while an interesting conversation is being carried on, gives just offense.

When taking leave, choose a moment when there is a lull in the conversation, then take leave of the hostess, letting one bow include the others in the room.

LENDING.—Never lend an article that you have borrowed, without receiving permission from the owner.

LETTERS.—Never look at the superscription on a letter that you have been requested to mail.

Never seal a letter that is to be given to a friend for delivery. It looks as if you doubted his or her honor in refraining from examining its contents.

The most contemptible meanness in the world is that of opening the private letter of another. No one with the slightest self-respect would be guilty of such an act.

LIBERTY.—Those who claim to act in every instance as they please, should reflect that every body else has the right to do the same. In such a state of universal independence and self-direction, one would meet with so many checks and obstacles to his own free will, by the opposition and interference of others, that his liberty would be less than when restrained by the most stringent society laws.

LIES, WHITE AND BLACK.—Any intentional violation of the truth is a lie, and may be uttered by the use of words, signs, or gestures. Children are often taught to lie by their parents uttering false statements, such as "The bears will catch you if you go out into the street."

A very common form of lying consists in the intentional withholding of a part of the truth, or an exaggeration or overstatement of facts. A lie told in the form of a joke is very ungentlemanly.

LISTENING.—Having two ears and but one tongue, we should hear at least twice as much from others as we speak.

It has been said that it takes great men to be good listeners, and were we as eloquent as angels, we would please some men, some women, and some children, much more by listening than by talking.

LIPS.—Never smack the lips when at the table, nor protrude them to manifest your displeasure.

LONELINESS.—It has been said that the best loneliness is when no human eye has rested on our face for a whole day.

LOQUACITY.—Feltham compares a talkative fellow with an unbraced drum, which beats a wise man out of his wits. It is the fistula of the mind—ever running, and almost incurable.

If the revenues of the mind are uttered as fast as they are received, it must of necessity be bare.

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LOST PROPERTY.— The finder of lost property has no right of ownership. Because he does not know where it is, the owner does not cease to have his right. It is the finder's duty to employ all reasonable means to find the owner, and charge a fair price for the time, labor, and expense incurred.

If an article cost the finder neither expense, time, nor trouble, he has no right to demand that the owner pay him anything for its return, but if the owner chooses to give a compensation as a token of his thankfulness, he may do so. If the owner cannot be found, the property belongs to the finder.

LOUNGING.— No well-bred person will lounge on the sofa, tip back his chair, or elevate his feet.

LOVE.— When we have received the impression that it is creditable and noble to indulge our resentments, it is hard to overcome our natural inclinations to retaliate, and to love our neighbors as ourselves.

LUCK.— "Good luck is the willing handmaid of upright, energetic character, and a conscientious observance of duty."

LUNCHES.— Ladies only are usually invited to "lunches." There is less ceremony shown here than at dinners and teas.

MAGNANIMITY.— When one receives an injury, he should think no one his superior, for he has it in his power to make himself superior to the other by forgiving the injury.

MALICE.— No gentleman or lady will bring disrepute upon him or herself by disgracing others in publishing their secret faults.

MANLINESS.— One shows his manliness, not by resenting, but by forgiving an injury.

MANNERS.— Of the two, manners and laws, the former is the more important. If the laws touch us here and there, at this time and then at that, manners vex or soothe, corrupt or purify, exalt or debase, barbarize or refine, by a constant, steady, uniform, insensible operation, like that of the air in which we live. They either aid or destroy morals. They are the sign by which one's status is fixed. Wherever we are let us aim to be respected as ladies and gentlemen, and so conduct ourselves accordingly.

MARRIAGE.— The proper and decent time having elapsed, the proposal happily accepted, and all obstacles removed, the next step is the fulfilment of the dearest of all hopes by the act of marriage.

SEASON.

In Europe, June, July, and August are the favorite months. In the United States all seasons are regarded as suitable, except the forty days immediately preceding Easter.

DAY.

Thursday is the favorite, next, Wednesday, then any other day of the week except Friday, the "unlucky" day.

It is a privilege of the lady to select the season and appoint the day

LICENSE.

The intended husband should procure the marriage license from the county or circuit court. He should be accompanied by a near relative of the lady—who must make oath that she can lawfully contract the proposed marriage.

TROUSSEAU.

This comprises only the bride's stock of attire, which is to last her for the first few years of her wedded life. The cost is a matter to be decided by the means and taste of the bride.

PRESENTS.

These should be sent in during the week previous to the wedding, not later than two days before the event.

Make them according to the means and the tastes of the recipients.

It is well to ascertain what the couple require, that duplicates may not be sent.

It is customary for the gentleman to make his bride a present of jewelry to be worn at her wedding.

BOUQUET

The bride's bouquet should be exclusively of white flowers, and a little orange blossom may be intertwined. It is the privilege of the groomsman to procure and present this to the bride.

BRIDESMAIDS.

These are usually selected from among the bride's sisters, cousins, or friends. The number varies, six being a good number; whatever be the number, it must be even. Their dress is usually of some light white material. The head-bridesmaid is supposed to be the bride's dearest and most intimate friend.

GROOMSMEN.

The number correspond to that of the bridesmaids. The first or principal groomsman has charge of the whole management, and should be furnished by the bridegroom with money to defray all expenses. If a ring be used, he presents it to the bridegroom at the proper moment, hands the fee to the minister, etc. The other groomsmen dress well, and make themselves agreeable.

BRIDE.

Retire early on the evening preceding the wedding. Avoid fatigue and excitement, and endeavor to look fresh and blooming. She resigns herself to the bridesmaids to be dressed for the ceremony. The dress is white for maidens, and of some light color for widows.

It is customary for the bride to make some little present as a memento to the bridesmaids on the wedding morn.

BRIDEGROOM.

The bridegroom ought not to see the bride on the wedding day until he takes his place by her side for the final ceremony. He and his groomsmen are to wear full evening dress.

He should be careful to see that all proper arrangements are made beforehand. He should make some little present as a memento to his best man. He may also make a less expensive present to the other groomsmen, but is not obliged to do so.

CEREMONY.

The ceremony may be performed by a magistrate, but preference is usually given to a clergyman. The ceremony may be performed either at home or in church. The bridegroom sends, at his own expense, a carriage for the officiating clergyman and his family.

The responses of the bride and groom should be given clearly and distinctly, but not too loud. (See Letters of Love, Index, for formal ceremony).

RECEPTION.

After the ceremony a brief reception is held in the drawing room to enable those invited to the wedding to offer their congratulations. Only the bridegroom is congratulate, as he is supposed to have won the prize. Offer your good wishes to the bride for her future happiness. (See Invitations, Index, for form of invitation).

TOUR.

Make all arrangements for the wedding tour before marriage. The bride must have her wishes obeyed in everything. Avoid haste and bustle, and the journey will be doubly pleasant. Of course the young couple make their tour all alone. (See Husband, Husband and Wife, and Wife).

MARRIAGE, CAUTIONS.— A young lady's present and future happiness demands that she show great discretion in the receiving of attentions from only those young men whom her reason approves.—Parents should see that undesirable friendships and intimacies be not formed with their daughters, as they soon lead to love. In its beginning an acquaintance is easily given up.—Young gentlemen should not form an ideal of a woman, and then give to it the pretty face and form of some acquaintance; the ideal too soon gives place to the real after marriage. The most perfect reserve in courtship is indispensable. (See Courtship).

MEDDLING.—It is a breach of etiquette for a caller to open or shut a door, raise or lower a window curtain, or in any way alter the arrangement of a room.

Teach children that it is rude to look into drawers or boxes, or to meddle with or handle anything away from home that is not intended for them to play with.

MEETING A LADY.—When a gentleman meets a lady and wishes to converse with her, he does not allow her to stand while talking, but turns and walks with her.

MEMORY.—A good memory for names and faces, and a self-possessed manner, are necessary to every one who would make a good impression in society. Nothing is more delicately flattering to another than to find you can readily recall his or her name, after a very slight acquaintance. The most popular of great men have gained their popularity principally through the possession of this faculty.

MERCY.—Lenity will act with greater force, in some instances, than rigor. It is, therefore, my first wish to have my whole conduct distinguished by it.

—Washington.

METHOD.—Dispatch may be said to be the soul of business, and method is the greatest contributor to dispatch. As far as unexpected incidents will allow, have a method for everything, and adhere to it.

MIRTH.—Like lightning flashes breaking through the clouds, and glittering for a moment, mirth keeps up a kind of daylight in the mind, and keeps it filled with a steady and perpetual serenity.

MISCHIEF.—Whoever hinders mischief, yet permitting it, makes himself an accessory to it.

MISERS.—As the miser advances in life, he clings closer and closer to the object of his idolatry. If other passions be dead and blasted, his desire for more self increases with renewed eagerness, until he sinks, unlamented, into an unhappy grave.

MISFORTUNE.—As to ourselves, our greatest misfortunes are the results of our own acts, and should be expected. As to others, no one should show himself glad at their misfortunes, though they be his enemies.

MIMICRY.—Avoid mimicry as the lowest and most ill-bred of buffoonery.

MISTAKES.—No one is exempt from mistakes, and when involuntary, we owe each other the most candid consideration. Though sometimes mortifying and annoying, they should be rectified kindly and in a charitable manner and spirit.

In company it is best to take no notice of the mistakes in the language of others.

MISUNDERSTANDING.—The consequences of misunderstanding and inattention are more universal, and the uneasiness greater than those of artifice and deception.

MODESTY.—Among the virtues to which we universally assign a high rank is modesty. Living unknown until some unforeseen moment, the modest man reveals his estimable qualities and his generous actions.

A truly modest person will obtain those delightful praises which the heart awards without effort, and his superiority, far from being importunate, will become attractive.

Good taste and morality require that women adorn themselves with no manner of dress that suggests ideas of indelicacy. The modest woman seeks rather to escape than to attract observation, and to assume no form of apparel with a design of notoriety.

MORALITY.—What is generally considered a sense of duty, is regard to the rules of morality. It is a principle of the greatest consequence in human life, and is claimed to be the only principle by which the bulk of mankind are capable of directing their actions.

There is scarcely a person who, by education, discipline, and example, may not be impressed with a regard to these general rules of conduct, as to act upon almost every occasion with tolerable decency, and through the whole of his life, avoid a tolerable degree of blame.

MORNING CALLS.—According to the code of etiquette, it is customary to call all the hours of daylight morning, and after nightfall evening.

Morning calls must never be made earlier than 12 M., nor later than 5 P.M.

Having set apart one morning or one evening in a week for receiving callers, it is a breach of etiquette to call at any other time.

From ten to twenty minutes in the morning is the limit of a formal call. (See Calling).

MOTIVE.—It matters not how brilliant an action may be, it should not be considered great unless it be the result of a great motive. The moment we perform an act for the sake of its consequences, all merit ceases.

MOUTH.—The "uneducated mouth" is one of the indications of bad breeding.

The mouth should be kept closed when eating, and as little noise made as possible. Never attempt to speak with a full mouth, also avoid putting the finger into the mouth.

MUSIC.—Music being the only sensual gratification we may indulge in to excess without injury to our moral or religious feelings, should be allotted an important place in every entertainment.

When complying with a request to play or sing, do so promptly without having to be urged.

NAILS.—Cut the nails twice a week, after washing, and keep scrupulously clean. Pare them with a sharp penknife, never bite, nor use the scissors. Cut them neither too short nor too long, and nicely round them at the corners. The "filbert-shaped" nail is considered the most beautiful.

Never scrape the nails with a view of polishing, as the tendency is to make them wrinkle.

Pare the toe nails at least once in two weeks. They grow only half as fast as the finger nails. (See Feet).

NAME.—It is vulgar to speak of persons with whom only a slight acquaintance can be claimed, by their given name.

It is a breach of etiquette for a lady to speak of a gentleman by his surname without a prefix. To do so conveys the impression of being low-bred.

If one on meeting a lady or gentleman, fails to recall the name, frankly say so.

When it becomes necessary for one to address a lady or gentleman whose name he does not know, it should be as "sir," or "madam."

Children should never be allowed to speak of any one by the last name. For a child to say thus, "I am going over to Smith's," shows a lack of proper training.

NAME, GOOD.—Consider that the invisible thing called a good name is made up of the breath of numbers who speak well of you; so that, if by a disobliging word you silence the meanest, the gale will be less strong which is to bear up your esteem.—Saville.

A name, whether good or bad, true or false, may be compared to the face by which one is known. It is the most valuable garment by which one is wrapped, and as soon spoken or seen, creates favor or prejudice.

NAPKIN.—The napkin should be used to protect the dress from injury from particles of food falling into the lap, also as a towel to cleanse the mouth and fingers when they become soiled.

It should never be used as a handkerchief for the nose, or to remove perspiration from the face.

Napkins should be folded square. Intricate forms is considered boarding-house and hotel style.

Upon leaving the table—the signal being given when the hostess rises—one's napkin should be placed upon the table unfolded.

NEATNESS.—Neatness, and its reverse, among the poor, are almost a certain test of their moral character.—Dr. Whitman.

NEGLIGENCE.—A little neglect may breed great mischief. For want of a nail the shoe was lost; for want of a shoe the horse was lost; and for want of a horse the rider was lost, being overtaken and slain by the enemy; all for want of a little care about a horse-shoe nail.—Benjamin Franklin.

The best ground when left uncultivate by the husbandman, is the soonest overspread by weeds.

MAKING NEW YEAR'S CALLS.

NEW YEAR'S CALLS.—It is customary for gentlemen to pay their respects to their lady acquaintances on New Year's Day by formal calls. Where practicable the newspapers should announce the names of the ladies who will receive callers on that day.

Ladies should never issue invitations for New Year's calls.

Gentlemen should lay aside their hats and overcoats before entering the parlor. Make the call in morning dress, and be as brief and cordial as possible. The calls should not last longer than ten or fifteen minutes. The cards are invariably delivered to the servant in charge of the door.

When refreshments are set out, gentlemen partake only after being invited by the hostess.

Ladies must wear full dress. To partially close the window blinds and light the gas, adds to the effectiveness of the toilet and the appearance of the drawing-room.

If a gentleman be in doubt as to whether a family are receiving, he may call and leave his card if they are not.

Calls should not be made before 10 A.M., nor after 5 P.M. Gentlemen may make calls singly, or in parties of not more than four.

The second day of January is called the "Ladies' Day," upon which they make their New Year's calls upon their lady friends. (See Calling).

NEW ACQUAINTANCE.—Avoid any familiarity with a new acquaintance, as you never know when you may give offence.

NO.—Every one finds it his duty sometimes to oppose the interests, views, or pleasure of his friends, or it may be to refuse to grant their requests. If such an unpleasant occurrence arise, it may be extremely difficult to say no, but it may be necessary. If possible, say it kindly and gracefully, so as not to offend, yet in such a manner as to carry the conviction that it is useless to attempt to get any other answer.

NOBLENESS.—He does not recollect injuries; for accurate recollection, especially of injuries, is not characteristic of the magnanimous man, but he rather overlooks them. He is not fond of talking of people, for he will neither speak of himself, nor of anybody else; for he does not care that he himself be praised, nor that others be blamed.

NOISINESS.—Aristotle.

Pope likens narrow-souled people to narrow-necked bottles—the less they have in them, the more noise they make in pouring it out.

NONSENSE.—To write or talk concerning any subject, without having previously taken the pains to understand it, is a breach of the duty we owe to ourselves. The privilege of talking and even publishing nonsense is necessary in a free state, but the more sparingly we make use of it the better.—Coleridge.

NOSE.—To blow the nose loudly is a breach of etiquette. Picking the nose is a disgusting habit, and may be easily avoided. If it be necessary to blow the nose when at the table, it is the duty of a person to leave the table to accomplish the purpose. If sneezing be unavoidable, apply the napkin and turn the head from the table.

OATH.—An oath is an appeal to Almighty God to witness the truth about to be uttered. Every one is under as much obligation to tell the truth without taking an oath as with it, and every truly good man's word is as good as his oath, yet there are many whom this solemn ceremony causes to be more careful.

OBEDIENCE.—A child's first lesson should be obedience, then all others may be given with but little difficulty.

Obedience insures greatness, but disobedience invariably leads to repulse. He who obeys offers up his own will as a gift.

OBLIGATION.—It is by each soldier feeling his obligation in doing his part, that the army conquers; it is by each bee doing its work, that the hive is stored with honey; it is by each insect putting forth all its might, that the coral reef becomes an island, and cities rise upon the bosom of the main.

OBSERVATION.—Dr. Cumming.

An acute observer observes without being observed. Young people who wish to appear to the best advantage, must be cool and self-possessed, in order to observe closely everything that is passing around, without appearing to be curious. They should concentrate their observing powers on the language and manners of those who are well versed in the rules of polite society. By lack of close attention, people often make ridiculous and serious blunders, which may be avoided by tact and prudence.

OBSTINACY.—Obstinacy, or the dread of control and discipline, arises from self-willedness, and a conscious defect of voluntary power. Foolhardiness can but seldom be regarded the disguise of conscious timidity.

OFFENSE.—It is very unpleasant to find that offense has been received where none was intended, and that pain has been given to those who were not guilty of any provocation. The ends of society being mutual beneficence, a good man is always uneasy when he finds himself acting in opposition to these purposes, as he can seldom be certain that he has not been hindered from consulting the common interest, by too much regard for his own ease, and too much indifference to the happiness of others.

OLD AGE.—Old age cannot be treated with too great respect. It should be given precedence, and its opinions listened to with deference. Its accommodations must be furnished with cheerfulness, and due reverence to it never be denied.

It must be acknowledged, but lamented, that there are some foolish and ill-educated young persons who do not pay that veneration which is due to the hoary head.

OLD MAN.—Nothing is more ungrateful than for children to call their parents by the terms "old man," and "old woman."

OPINION.—It is well to exercise much reserve in speaking out our opinions, except when requested, and then to give them simply as opinions, and not as facts.

Social opinion is regarded by the foolish with terror, and dare not touch or meddle with it; but others, by using discretion, utilize it to carve out their own purposes.

An intelligent and unprejudiced person will strive to learn the grounds of his own opinions, and never be like the foolish and the dead, who alone never change their opinions.

OPPORTUNITY.—Whenever you have a point to carry which depends on the will of another, choose the time of application with all the sagacity you are master of, for no one has a temper so even as not to be sometimes more liable to impressions than at others.

"There is a tide in the affairs of men,
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries;
And we must take the current when it serves,
Or lose our ventures."

ORNAMENT.—In our application of ornament, we should let nature be our guide. Her delights in it are ever subservient to use, but many pursue the opposite course, and adorn only to encumber. The trifling, the vulgar-minded, and the ignorant, prize only what is striking and costly, or showy in contrast. With the refined, simplicity is the feature of greatest merit in ornament.

PARDON.—Gentlemen having occasion to pass before ladies seated in lecture and concert rooms, and all other places, should beg pardon and pass with their faces and not their backs towards them.

PARTIALITY.—This term is often used to indicate a want of fairness on the part of any one, and, while it may be true at times, it is natural to be more attached to those who are kind, polite, and attentive, than to those who are indifferent and disobliging.

ETIQUETTE OF THE PARTY.

PARTIES.—It is in the party that society is on its very best behavior. Everything is regulated according to the strict code of goodbreeding, and any departure from this code becomes a grave offense.

It is the lady of the house who gives a party. The invitations should be in her name, and the replies addressed to her.

The invitations should be sent out from two to three weeks before the time. (For forms see Invitations—Index).

Refreshments must, of course, be provided for the guests during the evening. What they should be must depend entirely on the tastes and resources of those who give the party.

A cloak-room for the ladies must be provided, also a hat-room for the gentlemen. (See Dancing for other rules).

PARTING.—The true sadness of parting is not the pain occasioned by the parting itself, but in the when and the how you are to meet again the face about to vanish from your view. From the passionate farewell to the woman who has your heart in her keeping, to the cordial good-bye exchanged with pleasant companions at a watering-place, a country house, or the close of a festive day's blithe and careless excursion—a chord, stronger or weaker, is snapped asunder at every parting. Meet again you may, but when and how? Will it be with the same sympathies and sentiments, and after a brief interval as if it had been but a dream? or will it be in the great beyond where partings never take place?

PASSION.—There are faces upon which we cannot look without emotion—names we cannot hear without starting. All are possessed, to a greater or less extent, of that fiery impulse called passion, which seizes upon the present gratification, utterly irrespective of consequences, and utterly regardless of other or more excellent gratifications, and which may be obtained by self-denial.

In order to enjoy all the happiness of which we are capable, it is necessary to subdue our passions, and combine them with self-denial, thereby promoting our happiness as a whole.

PAST FAVORS.—The memory of past favors is like a rainbow, bright, vivid, and beautiful; but it soon fades away. The memory of injuries is engraved on the heart, and lasts forever.—Hallibourton.

PASTIME.—Pastime is a word that should never be used but in a bad sense: it is vile to say such a thing is agreeable because it helps to pass the time away.

PASSING ON SIDEWALK.—(—Shenstone.—In order to avoid the inconvenience and danger of collision, people should keep to the right when passing one another on the sidewalk.

PATIENCE.—Under ordinary circumstances we should be free from manifesting the slightest impatience when we are being waited upon, whether at the table or elsewhere.

All great achievements are the results of patient waiting and working. It is by patience that peace is preserved, love is cherished, and humility is taught. Patience sweetens temper, stifles anger, extinguishes envy, and subdues pride: she bridles the tongue, refrains the hand, trample upon temptations, and produces harmony in the family and in society.

PATTERN.—Having a pattern of great perfection, to or above which we cannot hope to attain, instead of being disadvantageous and discouraging, may prove to be of the greatest advantage. The highest excellence is attained through having the brightest and most perfect examples proposed for our imitation. He that aims at the heavens, is like to shoot higher than he who aims at a mark with in his reach.

PEACOCK.—Play not the peacock, looking everywhere about you to see if you be well decked, if your shoes fit well, if your stockings set neatly and clothes handsomely.—George Washington.

PECULIARITIES.—All reference to any unfortunate peculiarities of those present in company should be avoided.

PEDANTRY.—Display of knowledge in any department of study is pedantry, which is found least in the most learned. It is, however, generally regarded as an absurd ostentation of learning, and stiffness of phraseology, proceeding from a misguided knowledge of books, and an almost total ignorance of men.

PEEVISHNESS.—Johnson compares peevishness to the canker of life, that destroys its vigor, and checks its improvement; that creeps on with hourly depredations, and taints and vitiates what it cannot consume. It covers as with a dark fog the distant horizon.

PENALTY.—Throughout nature disobedience to natural laws is followed by penalties. Were it not for penalties being attached to statutory laws, it would be folly for legislatures to enact a code that could be neglected with impunity. Can it be supposed that the laws of polite society can be disregarded and trampled upon without the infliction of penalties? —You can no more find a place is society where the focal responsibilities of law do not weigh upon one, than you can find a vacuum in nature.

PERFUME.—Perfumes that are agreeable to some are highly offensive to others. It is in bad taste for any one to use them to such an extent as to attract the attention of those passing along the street, or that those sitting or standing near may observe and comment upon it. There may be a suspicion that musk or other odor is used for the concealment of some scent that is supposed to be less agreeable or reputable.

It is offensive to enter company if we be scented with any kind of food, drink, narcotics, cologne, musk, tobacco or onions, or the odors of the henhouse or barn, to any noteworthy extent.

PERJURY.—The crime denominated perjury, is a violation of the oath or affirmation. When there can be no dependence placed upon the sacred obligation of the oath, there is an end to all human confidence.

Owing to the great variety of circumstances, the best men are liable to be mistaken with regard to speaking the truth, though their intentions are the best. Such persons may speak the truth "according to their best knowledge and belief," and declare it "without fear, favor, or affection."

PERSEVERANCE.—It is not by strength, but by perseverance that all great works are accomplished. There are no performances of human art at which we look with praise and wonder, that are not instances of the resistless force of perseverance. To those who would step out of the crowd and mount to the top where there is always room to spare, perseverance is one of the great qualities most valuable.

PERSON.—Not considering the requirements of good health, common decency demands that the unpleasant odors emanating from the body, impregnating the clothing, and thereby becoming very offensive, be remedied, not only by a frequent change and washing of the different articles of underwear, but that the water be applied directly to the body itself, in the form of frequent baths.

PERSONALITY.—It is rude and vulgar to ever be guilty of personality in conversation.

PERSONAL RIGHTS.—There are certain rights belonging to every man that have been termed inalienable. Among these are life, liberty, and the pursuit of happiness. Others growing out of these are, the right to worship God, the right of free speech, of a free press, and of trial by jury.

Rights are grand, and even may be considered divine things, but the way in which they are expounded is too often the very incarnation of selfishness. There can certainly be nothing very noble in a man who is forever going about calling for his own rights.

It is in very bad taste for one to be ever thinking of his personal rights, to the resenting of every little slight, whether real or imaginary

ETIQUETTE OF THE PICNIC.

PICNIC.—Invitations may be either verbal or in writing, and should be sent at least two weeks in advance.

If possible, select a convenient and attractive place near a spring or running stream for the entertainment.

Provide an abundance of refreshments, making an allowance for an extra number of guests, as you may have occasion to add to your list.

Be prepared for protection against a shower of rain. Dress in light, inexpensive costumes, and let the whole affair be as free from restraint as is consistent with good breeding.

PHYSICAL COURAGE.—The bull-terrier is cross, unsociable, untractable, unreliable, and vicious. Among dogs he holds the same rank that the prize-fighter and professional pugilist does among men—the meanest and most unworthy animal of his kind. Whoever, for the sake of money or notoriety, engages in an encounter in which he will receive and inflict serious, and sometimes fatal injuries, possesses no qualities that raise him in any degree above a brute. If the bull-dog be his equal, the hyena is his superior.

PHYSICAL TRAINING.—To both men and women who aspire to be of the best society, physical training is necessary. Every gentleman should know how to fence, to shoot, to swim, to ride, to row, and to carry himself properly. Calisthenic exercises should be taught every young woman. Riding, swimming, driving, archery, and all suitable out-door exercises strengthen the muscles and give beauty and suppleness to the form.

PHRASEOLOGY.—There is a certain language of conversation that every person should be master of. To say to a man just married "I wish you much joy," may be civil, but nevertheless is vulgar. It is more elegant to approach him with warmth and cheerfulness, and, squeezing him by the hand, say, "Believe me, my dear sir, I have scarce words to express the joy I feel, upon your happy alliance with such or such a family," etc. To one who has lost his wife, do not say, "I am sorry for your loss," but, advancing slowly, with a peculiar composure of voice and countenance, begin your compliments of condolence with, "I hope, sir, you will do me the justice to be persuaded, that I am not insensible of your unhappiness, that I take part in your distress, and shall ever be affected when you are so."

A correct phraseology can be acquired only by frequenting good company, and being particularly attentive to all that is said. What company one has kept, is shown by his words and phrases. Slight, genteel compliments are acceptable, but fulsome ones are nauseous, and create disgust. We should never compliment away our integrity, trifle with common sense, or speak so as to deceive.

PIANO.—It is a breach of etiquette for a caller who is waiting the entrance of the hostess to open the piano, or to touch it if open.

PITY.—The exhibitions of pity are as various as the wants and conditions of human society. It is manifested among men by sympathizing with the sorrows, lessening the burdens, and alleviating the distresses of the poor, the needy, and the unfortunate. The sick invite our assistance, the ignorant our instruction, and the fallen our helping hand.

PLACE.—An orderly person has a place for every thing, and everything in its place. A systematic management of business requires that each part have its time.

PLACES OF AMUSEMENT.—It is advisable to secure good seats before the evening of the entertainment.

Always enter as quietly as possible, and be in your seat when the performance commences.

When entering, the gentleman walks side by side with a lady, unless the entrance way or aisle be too narrow, in which case he precedes her, allowing her to occupy the inner seat, while he assumes the outer.

Perfect quiet should be preserved during the performance, but it is proper to converse in a low tone between the acts.

All whispering, loud talking, boisterous laughter, violent gestures, lover-like demonstrations, or side comment, should be strictly avoided.

A gentleman may recognize his lady friends in another part of the room, but a lady is not expected to bow to a friend seated at a distance from her.

Only an ill-bred gentleman will leave a lady alone, and it is an insult for him to visit the refreshment room between the acts.

A gentleman with a lady must not give up his seat to another lady, but remain by the side of the one whom he accompanies, conversing with her between the acts, and rendering her assistance in case of accident or disturbance.

A gentleman alone may join lady friends for a few moments between the acts, but recollect that their escort has a prior claim on their attention.

PLAY.—There are four words which signify play: viz., relaxation, diversion, amusement, and recreation. All imply a previous existence of exertion. The idea of relaxation is taken from a bow, which must be unbent when not in use, to keep up the spring. Diversion signifies a turning aside from the main purpose of a journey, to see something that is curious and out of the way. Amusement means an occasional forsaking of the Muses, when the student lays aside his books. Recreation is a refreshing of the spirits when they are exhausted by labor, so that they may be ready in due time to resume it again.

Play harmonizes the faculties, if overstrained by labor; keeps alive and in a healthful state of activity the sympathies, and is the conservator of moral, mental, and physical health. It develops in the child a harmonious and healthful organism, preparatory to the commence of life's work.

PLAYMATES.—A mother who is as careful of her child's moral nature, and manners, as of his physical nature, will guard him from naughty and rude playmates as closely as she would from the measles or whooping-cough.

PLEASURE.—The excesses of the enchantress, pleasure, must be avoided. When pleasure becomes a business it changes its name and becomes torment. It must not be imagined that one must live by the sweat of his brow, and not reap the harvest of his own labors. Those pernicious and unlawful pleasures that prey on the body and purse, and in the end destroy both, should be watched with the utmost care.

In society circles, the essential part of good breeding is the practical desire to afford pleasure, and to avoid giving pain. A man possessing this desire requires only opportunity and observation to make him a gentleman.

POINTING.—Never indicate an object by pointing at it. Move the head or wave the whole hand.

POLITENESS.—"True politeness," says some one, "consists in making everybody happy about you; and as to mortify is to render unhappy, it can be nothing but the worst of breeding."

Kindly politeness is the slow fruit of advanced reflection; it is a sort of humanity and kindliness applied to small acts and every-day discourse; it bids man soften towards others, and forget himself for the sake of others; it constrains genuine nature, which is selfish and gross.—*Taine.*

Those parents who regulate their lives in accordance with the commands of the Bible, find many verses which are of great assistance in teaching politeness to children, as "Be ye courteous one to another," "Be respectful to your elders," "Do to others as ye would that they should do to you," etc.

POLITICAL.—In political conversation, a certain class, who never understand the utility of marches, countermarches, ambuscades, and affairs of outposts, but are always, and under all circumstances, for pitched battles, being present, it is well to avoid all reference to the subject when in company.

POOR.— Though one be as poor as the beggar Irus, as a church mouse, or as naked poverty, if he be loyal in all other respects, is entitled to the same respect and attention, as if he were the son of a Croesus.

Those whom misfortune has made unhappy, whether they be of the professional, idle poor, the criminal poor, or the innocent poor, have a claim on our pity.

POPULARITY.—A peaceful popularity —that of the heart, and which is worn in the bosom of families, and at the side of death-beds, is the only one worth striving for. This is the popularity that takes deep root, and spreads itself far and wide.

There is another kind of popularity, that is high and far-sounding, and which falls away like blossoms, for nothing that is false can be lasting. It is a popularity of stare, of pressure, of animal heat, and a whole tribe of other annoyances which it brings around the person of its unfortunate victim. It deprives home of its sweets, and places a man above his fellows, where he stands a conspicuous mark for the shafts of malice, envy, and detraction.

POSSIBILITIES.— Though one possess not the beauty of Medusa, there is always the possibility of beauty where there is an unsealed human eye; though he be not possessed of Orpheus' lute, there is a possibility of music where there is an unstopped human ear; though not in possession of a prophet's inspiration, there is a possibility of inspiration where there is a receptive human spirit.

POSTAGE.—When writing to ask a favor or to obtain information, do not fail to enclose a postage stamp for the reply.

POVERTY.—It is a breach of etiquette and a positive unkindness to call upon a friend in reduced circumstances, with any parade of wealth in equipage or dress; poverty is most severely felt when reminded of "better days."

PRAISE.—Be not too niggardly in your bestowal of praise, but let it be the reflection of virtue. To be praised by them that are praiseworthy is a happiness, but by flatterers, is a mockery. Praise will make a wise man more modest, but a fool more arrogant, even turning his weak brain giddy. Above all things let another man praise you, not your own mouth.

PRECEDENCE.—If a person of greater age than yourself desire to step into a carriage, or through a door first, it is more polite to bow and obey than to decline. Compliance with, and deference to, the wishes of others, is always the finest breeding.

A gentleman precedes a lady in passing through a crowd; ladies precede gentlemen under ordinary circumstances.

When one is in office, or occupies a position of honor and dignity, he has precedency in all places; yet he should respect those who are his equals or superiors in age or other qualities.

Gentlemen precede ladies in going up stairs, but follow in going down.

PRECAUTIONS.— The following precautionary proverbs may be made frequent application of: "Look before you leap." "Beware of had I wist." "Who sees not the bottom, let him not pass the water." "Asses sing badly, because they pitch their voices to high." "When the head is broken, the helmet is put on." "Dig a well before you are thirsty."

PRECEPTS.—Some one has said that one of the saddest things about human nature is, that a man may guide others in the path of life, without walking in it himself; that he may be a pilot, and yet be a castaway; that it is easier to teach twenty what it were good to be done, than to be one of the twenty to follow the instruction given.

PREJUDICE.—He whom prejudice so warps, that he acknowledges none to be possessed of good sense, except when they agree with him in opinion, is a simpleton, the walls of whose mind are exceedingly narrow.

PRESENTS.—(See Gifts, also Marriage). Presents to a young lady should be characterized for taste—not value.

PRESUMPTION.—"Fools rush in where angels fear to tread." "Presumption of every kind supposes folly at its bottom." One who is oversecure and self-confident, may be likened to him who goes to a deep river, and hopes to cross over on no other bridge than his shadow.

PRETENSION.—Not to be able to do everything, is no disgrace; to undertake, or pretend to do what you cannot, is priggish and conceited. False modesty is vanity; false glory, levity; false grandeur, meanness; false virtue, hypocrisy; and false wisdom, prudery.

To give one's self airs of undue importance, is to exhibit the credentials of impotence. To be over-desirous of appearing clever, tends to prevent our becoming so.

PRIDE.— Pride makes some persons ridiculous, but when coupled with good sense, is an embellishment to others. Pride is generally a result of ignorance, and is always an attendant of folly. Pride manifests itself in some people through titles and genealogy. The stamp of dignity defaces in them the very character of humanity, and transports them to such a degree of haughtiness that they reckon it below themselves to exercise either good nature or good manners.

PRIVACY.— The right of privacy is sacred, and should be held in the highest respect. When books are in an open case or on a center-table, cards in a card-case, or newspapers about, it is presumed they are open for examination. No intimate relation will justify an abrupt intrusion upon a private apartment. Trunks, packets, boxes, papers and letters of every individual, locked or unlocked, sealed or unsealed, are sacred.

One should avoid asking questions which relate to the private affairs of the person spoken to, and be guarded against conduct which may look like an attempt to force confidence.

It is a breach of etiquette to appear to have some privacy or mystery in company.

PROFANITY.— To use intemperate and profane expressions, is to betray an addiction to one of the grossest forms of vice, for which there can not be the least apology or excuse. It is practiced only by those who have no command of elegant language, and who suppose that in order to be earnest or emphatic they must be profane.

PROMISES.—As one cannot look into the future and determine what may happen, the greatest care should be taken not to promise anything that he may not reasonably expect to perform.

One who promises that which he has no intention of fulfilling, and is ever ready with promises, which he fails to execute, soon becomes known as a very unreliable party.

Promises are not bind in the following cases: 1. When the performance is unlawful. 2. When they contradict a former promise. 3. Before acceptance, that is, before notice given to the promisee. 4. When released by the promisee. 5. When an error proceeds from the mistake or misrepresentation of the promisee. 6. If based upon a supposition, and that supposition turns out to be false.

Providence permitting, is always understood or implied.

PROMPTNESS.—Promptness in apologizing is one of the distinguishing marks of good breeding.

The following are Lord Chesterfield's words to his son: "Despatch is the soul of business." "Never put off till to-morrow what you can do to-day." "Snatch, seize, and enjoy every moment."

PROPOSALS.—A proposal should always be the result of second thoughts. Only a fool will suffer himself to be led into putting the rest of his life in jeopardy on the spur of the moment. No prudent woman will consent to accept an offer of marriage at the hands of a man whom she has known only for a few days or weeks.

Avowals of love, or proposals, are made in various ways. Tennyson gives the poetical manner in his "Gardener's Daughter." A second method as given in "David Copperfield," represents the taciturn carrier owning his intentions to Peggotty, by inscribing in chalk on the tailboard of his cart the words, "Barkis is willing." A third method is the proposal during a country walk, and may be strongly recommended as a model to be acted upon.

When the lover is not self-possessed, it is recommended that he make the proposal through writing. For form, see under Letters of Love—Index.

If one be self-possessed, and is reasonably certain that his proposal will not be rejected, simply say, at any convenient time and place, "Will you marry me?"

PROTECTION.—Ladies are not allowed, upon ordinary occasions, to take the arm of any one but a relative or accepted lover in the street and in the daytime; in the evening—in the fields, or in a crowd, wherever she may need protection—she should not refuse it. She should pass her hand over the gentleman's arm merely, but should not walk at arm's length apart. The lady's step must be lengthened and the gentleman's shortened, to prevent the hobbling appearance of not keeping step.

PRUDE.—An extremely reserved female, who affects peculiar delicacy and coyness of manners, is termed a prude. She is cold, dignified, unsociable, and fearful of compromising her reputation. She is sensitive, censorious, and apt to misinterpret the words and acts of others.

PUBLIC PLACES.—For a lady or gentleman to manifest other than proper and dignified conduct in public places, is a sure mark of ill-breeding. The truly polite are always quiet, unobtrusive, considerate of others, and careful to avoid all manifestations of superiority or elegance. While on the street, all loud and boisterous talking, immoderate laughing and forward and pushing conduct, inevitably subject a person to the satirical remarks of the persons among whom he is thrown, and are perhaps the surest means of proclaiming that such a person is not used to the ways of polite society.

PUBLIC SENTIMENT.—This, like a battery to the city, powerfully restrains men from doing wrong; but, when they have done wrong, it sets itself as powerfully against them.

PUNCTUALITY.—Strict punctuality marks the true gentleman. A conscientious regard for the rights and feelings of others will compel every one to be prompt in fulfilling every duty.

Punctuality is one of the most admirable of qualities, and the man or woman who possesses it is a blessing to his or her friends. The one who lacks it is wanting in one of the first requisites of good-breeding.

PUNNING.—All punning should be avoided; no one feels secure in the society of an inveterate punster, and his vulgar witticisms are out of place and uncalled for.

PURITY.—Purity may be said to be the feminine, and truth the masculine, of honor. Purity is regarded as practically the main part of virtue, and is inward, secret, self-sufficing, harmless, and to crown all, thoroughly and intimately personal.

QUARRELING.—Men, unlike iron, are worse to be wrought upon when they are hot. It is advisable to be warily silent concerning all matters of dispute between others; for he who blows the coals in quarrels that do not concern him, is very likely to receive the flying sparks in his face, it being extremely difficult to interfere without giving offense to one party or the other.

QUESTIONS.—One is judged to a far greater extent by the questions he asks, than by the answers he gives.

QUIETNESS.—Boyd states that the really and substantially happy people in the world are always calm and quiet.

QUOTATIONS.—Avoid quotations as much as possible, though short, pungent epigrammatic quotations, if suitable to the subject of the conversation, may be occasionally introduced.

If you are tempted to use a quotation from a foreign or classic language apologize to the company for its use, or translate it; but not in such a manner as to convey the idea that you are glad to display your learning, or that your hearers are in need of such a translation.

RANK.—Three ranks include all grades of society; viz., inferiors, equals, and superiors. We should advise or command an inferior; request or persuade an equal; and beg or petition a superior.

READING.—One ought never to read in company, but may look over a book of engravings with propriety.

When there is a necessity for reading, do not leave, but ask permission. It is exceedingly unrefined to approach the book or writings of any one so as to read them, unasked.

REBUKES.—Remember that open rebukes are to be administered by magistrates and courts of justice; private ones when all the witnesses of the offender's blushes are blind, and deaf, and dumb.

RECEPTIONS.—The full-dress reception at home is an event of considerable importance in the social world. The invitations should be issued fully two weeks in advance. (For forms see Invitations, also Miscellaneous Letters—Index). The invitations should be delivered by a footman.

It is well to throw open as many rooms as possible, and to have tables scattered around here and there, covered with choice engravings, photographic views, valuable scrapbooks, etc., for the entertainment of the guests.

The hostess should see that her company does not break up into cliques of twos or threes, as such a plan will leave a number out who do not possess any great conversational powers.

Should any guest be invited by the hostess to play the piano, she should not wait to be urged, offering excuses, but rise quietly, proceed to the piano and play something short and suitable for the gathering. Never play upon the invitation of any one but the hostess, turning off all other requests as gracefully as you can. (See Dancing, Entertainment, Parties, Calling, etc.).

RECKLESSNESS.—Application of the following proverbs may be made when occasions arise: "In for a penny, in for a pound—he that takes the Devil into his boat must ferry him over the sound." "It is the first shower that wets." "It is all the same whether a man has both legs in the stocks or but one." "There is nothing like being bestmattered for making one defy the slough."

RECOGNITION.—It is less rude for ladies to return a recognition coldly, and upon the next occasion to turn away or to avoid a meeting, than to give a "cut direct."

Never presume to attract the attention of an acquaintance by a touch, unless you are extremely intimate. Recognition by a simple nod or spoken word is all that can be allowed.

Gentlemen who meet at the house or rooms of a mutual friend are not obliged to recognize one another if they meet again elsewhere the same day.

A lady is not obliged to afterward recognize a partner with whom she may have danced at a ball.

A lady must recognize a gentleman by bowing before he is at liberty to salute her. (See Bowing, Hat, and Salutation).

RECONCILIATION.—Reconciliation is "second friendship." For former friends to meet at a party, at church, or elsewhere, without recognizing each other is very uncivil and childish. It is their imperative duty to forgive and be forgiven, and then to become reconciled.

ETIQUETTE OF FAIRS.

RECREATION.—Every one in company should join in any diversion which does not violate his conscience or his sense of propriety. Plays that are rough and rude, in which there is danger of injury to persons, to furniture, or to clothing, should never be tolerated in the house. Amusements which permit any improper familiarity between the sexes, are in bad taste. Games which require the boys to catch, and struggle or wrestle with the girls, or even to put their hands upon their person, or to kiss them, are of the most doubtful propriety. The respect which the sexes should cultivate for each other is entirely inconsistent with such freedom. (See Physical Training).

REFINEMENT.—Refinement which does not strengthen the intellect and purify the manners is only nominal. True refinement gives us sympathy with every form of human life, and enables us to work most successfully for its advancement.

Men are frequently met with who are so outrageously cultivated, that they feel perfectly miserable the moment they are taken away from all which is exquisite. It is a pity that they were born into this rough world, where the mountain rocks are left unhewn, and the wild forests are not veritable parks.

REFRESHMENTS.—At parties, balls, and receptions, refreshments must be provided for the guests during the evening, and a refreshment room is advisable.

Of what the refreshments shall consist, must depend entirely upon the tastes and resources of those who give the party. Any or all of the following may be provided as discretion may dictate: Lemonade, tea and coffee, ices, biscuits, wafers, pies and cakes, cracker bon-bons, fowls, ham, turkey, jellies, blanc-mange, trifles, etc.

REGRETS.—Whenever an invitation to a party, etc., has been accepted, and if anything prevent attendance, a regret must be sent the day after the party. The form must correspond somewhat in style to the invitation, and it is more courteous and friendly to state the reason for non-attendance. (See Invitations—Index).

REJECTION.—It is a lady's privilege to reject a suitor. When she chooses to exercise this prerogative, she should do so creditably and with justice to herself and her suitor. She should convey to him clearly and without ambiguity the decision she comes to. A doubtful answer given under the plea of sparing the suitor's feelings, is unfair and unjustifiable, as it raises false hopes, and renders a man restless and unsettled.

No sensible man—no man whose opinion is worth a lady's consideration—will think the worse of her, or feel himself personally injured by a refusal, though it may give him pain, and cause his vanity to suffer, his heart remains unharmed. (See Engagement and Courtship).

RELIGION.—All religious topics should be avoided in society conversation. No more serious offense can be committed than to show disrespect to any person's religious faith. (See Church).

REMARKS.—It is a breach of etiquette to make remarks upon a caller who has just left the room, whether made by the hostess or other visitors.

REMEMBRANCE.—To affect not to remember a person is despicable, and reflects only on the pretender.

REPARTEE.—Avoid repartee; it is not a weapon for daily use, and is apt to wound both speaker and hearer.

REPETITION.—Never ask to have a sentence repeated, unless actually afflicted with deafness; it implies a wandering attention.

REPLIES.—When asked a question by a lady, always answer promptly, distinctly, and politely, "Yes, ma'am," or "No, ma'am." If addressed by a gentleman, say, "Yes, sir," or "No, sir." Replies thus respectfully given, indicate a good training.

REPROACH.—Any flagrant atrocity or course of immorality deservedly causes one's name and himself to be the general subject of reproach. True invective, administered at the proper time and in the right spirit, is allowable.

REPROOF.—Never reprove servants or children before strangers or guests, as it is unpleasant for all concerned, and by the hostess passing over the annoyance, others may not notice it.

When it becomes necessary to reprove any one, consider whether it ought to be done in public or in private, at present, or some other time, and avoid all signs of anger, but let an earnest expression mark your denouncement.

REPUTATION.—A fortune does not necessarily consist of tangible property, but may be comprised in a reputation for good judgment, for fair dealing, for truth, and for rectitude.

"All is not gold that glitters." "Likely lies in the mire, but unlikely gets over." "Every glowworm is not a fire."

RESENTMENT.—One should not be too hasty in resenting an injury, as it is often as much imaginary as real, and at other times unintentional; in which case a resentment would cause unjust pain. Resentment often only gratifies the one who intended the injury.

RESOLUTIONS.—Experience shows that in time of need, resolutions are of very great value. Good resolutions are precious almost beyond price. "Sudden resolutions," says Phelps," indicate nothing but the changeableness of the weather, like the sudden rise of the mercury in the barometer."

RESORTS.—At places of summer resort, those who own their cottages call first upon those who rent them.

RESPECT.—Respect is more likely to be secured by exacting than by soliciting for it. Men are respectable, generally speaking, only as they respect others.

There is a certain amount of respect due the aged, aside from all other considerations. To see well-trained youth of either sex look after the comfort of old people, is one of the most beautiful of scenes.

An observance of a multitude of little things, from a strict observance of the Sabbath, down to the careful tying of a cravat, is implied in respectability.

RESPONSIBILITY.—Every individual has a responsibility bearing upon him, not only for what he may say and do here, but also in the hereafter. No plea of ignorance can take away our responsibility. It usually walks hand in hand with our capacity and power.

Whenever a man undertakes another's business, he makes it his own; that is, promises to employ upon it the same care, attention, and diligence that he would if it were actually his own, for he knows that the business was committed to him with that expectation.

RESTLESSNESS.—Signs of restlessness at concerts and other places of amusement, distinguish those only who are very impolite.

A temper that is anxious and restless, that runs to meet care on its way, that regrets lost opportunities too much, and that is over-painstaking in contrivances for happiness, is foolish, and should not be indulged.

RESTRAINT.—It is well to be silent when you have anything to communicate that will distress the heart of the person whom it concerns, in order that he may hear from some one else.

RETURNING.—When returning from entertainments, etc., the gentleman escorting a lady should accompany her home. If the hour be suitable, the lady may invite him into the house; otherwise she should say, in a very frank manner, "It is too late to invite you to come in, but I shall be pleased to have you call again." To stand at the gate and converse is very imprudent, and may cause unpleasant remarks. Should the gentleman enter the house, he should be too prudent to stay so long that he may "wear out his welcome."

REVENGE.—Revenge is an act of passion, and for that reason should not be returned. It is among the basest of actions, and is diametrically opposed to the Christian principles of forgiving injuries, and returning good for evil. It is gratified only with inflicting pain without any prospect of advantage.

REVERENCE.—A lack of reverence in one in any place of worship, is an indication of low parentage, and a coarse nature, not subject to refinement.

A distinguishing trait of a refined mind, is a reverence for religious observances, and religious opinions. Whatever one's opinions on the subject are, he has no right to intrude them upon others, perhaps to the shaking of their faith and happiness.

Mothers should never allow any disrespect in their children's manners toward themselves, or others who are older than they are; they should be taught especially to reverence the aged.

REVERIE.—Any loose or irregular train of thoughts, occurring in musing or meditation, is said to be reverie. Not only should the mind be guarded from impure imaginations, but must not be permitted to indulge in useless reverie. A formation of such a habit will very seriously interfere with intellectual growth.

RIDICULE.—For one to indulge in ridicule, whether the subject be present or absent, is to descend below the level of gentlemanly propriety.

RIDING.—

Always mount on the near side, by putting your foot in the stirrup, your left hand on the saddle, then springing, throw your right leg over the animal's back.

The whole art of riding is conveyed in the following stanza:

"Keep up your head and your heart,
Your hands and heels keep down,
Press your knees close to your horse's sides
And your elbows close to your own."

See that ladies are in the saddle before mounting yourself. The assistance they require must be rendered by yourself, and not by the groom. When a mounting block or steps are not provided, the lady will place herself on the near side of the horse, her skirt gathered up in left hand, her right on the pommel, keeping her face toward the horse's head. You stand at its shoulder, facing her, and stooping, hold your hand so that she may place her left foot in it; then lift it as she is springing, so as to aid her, but not to give her such an impetus that she is liable to land on the other side. Next, put her foot in the stirrup, and then smooth the skirt of her habit.

Keep to the right of the lady or ladies riding with you, and always pass to the right of those whom you meet or overtake on the road. Provide for every need and comfort of the lady, open all gates, and pay all tolls.

When meeting friends on horseback, do not turn back with them; if you overtake them, do not thrust your company upon them uninvited; if you meet a lady walking, and wish to speak to her, dismount and lead your horse.

The lady must always give the pace, as no gentleman will ride faster than she may find agreeable, or try in any way to display his own horsemanship. The gentleman must never touch the lady's horse, unless requested.

A young man riding with an elderly gentleman, should extend all the courtesies of the road to him as to a lady.

In dismounting, the lady must free herself from the pommel of the saddle, and then the gentleman must offer his right hand, taking the lady's left, and use his own left as a step on which she will put her foot, gradually lowering his hand, as soon as she rises from the saddle, and allow her to touch the ground without springing.

RIGHT AND WRONG.—With reference to moral qualities, all actions are divided into two classes—the good and the bad. The right is the good, and the wrong is the bad. Conscience tells us that our own actions are right or wrong, but rational investigation is necessary to determine the character of the actions of others. When conscience urges us to do right, its voice should never be slighted, because when it is continuously disobeyed, it ceases to be heard.

RIGHTS.—Of things that are fitting and right, many cannot be defined and limited with entire accuracy; others are so obvious and manifest, that, in precise form and measure, they may be claimed by those to whom they are due, and required of those from whom they are due. (See Personal Rights).

RISING.—A gentleman rises when those ladies with whom he is talking rise to take their leave. Ladies calling do not rise unless those who are leaving are friends older than themselves.

Some ladies only rise when their visitors leave, others accompany them as far as the drawing-room door.

Gentlemen should rise when ladies enter.

ROUGHS.—There is a certain class of young men who have won for themselves the unenvied appellation of "rough," or "hoodlum." They affect a contempt of the female sex, and speak disrespectfully of their mothers, or treat their sisters with derision. Their depraved and vicious character entirely disregards all the obligations of both public and private duty. Their vandalism is often seen in the breaking of windows in unoccupied houses, in cutting and breaking shade trees, in taking off gates and defacing fences, in daubing painted and whitewashed walls, and in tearing down handbills. People passing along the less crowded streets are continually receiving their insults. For such conduct, which sets at defiance all the obligations of good citizenship, there cannot be the slightest excuse offered.

RUMORS.—He who is discreet will not be hasty to believe flying reports to the disparagement of others.

Newton compares the spreading of rumors to the art of making pins. There is usually some truth, which he calls the wire; as this passes from hand to hand, one gives it a polish, another a point, others make and put on the head, and at last the pin is completed.

RUSH.—A rush and scramble at a railway ticket office or elsewhere is always carried on by ill-bred people, or those who appear so at the time.

SACRIFICES.—One should learn to make small sacrifices with a good grace; to accept small disappointments with a patient spirit. A little more self-control, a little more allowance for the weakness of others, will often change the entire spirit of a household.

SALUTATION.—

The four forms of salutation are, bowing, hand-shaking, kissing, and address.

It is an act of discourtesy to refuse any one, no matter how lowly his station, the recognition of a bow.

Ladies should recognize gentlemen first by making a graceful inclination.

Simply bow to a casual acquaintance, but a pleasant, cordial greeting should be cultivated among intimate friends.

One should not be too forward, but always friendly and courteous, and the first to salute.

In public promenades salute your acquaintances only the first time you meet them.

Never salute even your most intimate friends by nodding—it is vulgar.

General salutations of a mixed company are not in vogue. Etiquette requires us to recognize only our friends and acquaintances. (See Bowing, Address, Air, Introduction, Kissing, and Shaking Hands).

SARCASM.—Ridicule, satire, and irony may be successfully and properly employed to expose folly and vice; but sarcasm which is the indulgence only of personal resentment, is never justifiable. Its arrows are barbed with contempt, and its sneers gall and wound.

SATIRE.—Satire has a mixture of ill-nature, and may be employed either in personal or grave matters. It may be considered one of the most agreeable, yet the most dangerous of the mental faculties. When refined, it always pleases, but if used to excess, it is dreaded. When unmixed with spite, and the person satirized can take a part in the satire, it is allowable.

SCANDAL.—Scandal refers more immediately to the nature of an action than to the character of the person. It makes him an object of offense, or even of abhorrence.

It is too often that cruel stories run as if on wheels, every one adding oil, thereby increasing the momentum. It should be borne in mind that he who speaks ill of another, before he is aware, makes himself such a one as he speaks against. No one with civility and good breeding will indulge in such talk.

SCHOLARSHIP.—Scholarship without good breeding puts one's faults in bolder relief, and, except by accident, can not be said to be the measure of one's power.

SCHOOL.—If teachers expect polite treatment from their scholars, they themselves must set the example. If you would inspire manliness in others, first find the man in yourself. Children have more need of models than of critics.

Teachers should understand that many of their pupils have been neglected at home as regards training in good morals and gentle manners, and that by giving a little extra time to this subject in the school-room, those neglected pupils would gain a knowledge which, in after life, would prove a blessing.

Teachers should address young misses as, "Miss Dora," "Miss Julia," etc. Young boys (too young to be addressed as Mr.) should be addressed as "Master Brummitt," "Master Bishop," etc. Pupils should be obliged to say "Yes, ma'am;" "No, ma'am," "What, ma'am," never, yes, no, or what.

The chief cause assigned for the continuance and diffusion of moral sentiments is imitation. The efficacy of this principle is most observable in children; indeed, if there be anything in them which deserves the name of an instinct it is their propensity to imitation. In consideration of this fact, cannot any teacher see that the entire atmosphere of her school-room is dependent upon trifles? If she, by her own actions, and in accordance with her requirements, insures kindness and politeness from all to all, she may feel almost sure of the success of her school.

No teacher, unless deficient in good judgment, and careless as to the security of his or her position, will speak disrespectfully of the pupils' parents, blaming them for the pupils' lack of interest in school, truancy, etc. Such a course is highly reprehensible in the teacher. Better assume that the parents would be displeased with anything wrong in the pupils.

It is natural for a teacher to feel more attached to those who are kind, polite, and attentive, and who manifest a disposition to be agreeable; yet it does not follow that he shall dislike or hate those who have not tried to win his favor. The term partiality is interpreted by the pupils as indicating a want of fairness on the part of the teacher, and when the impression takes hold of some minds, it is almost impossible by any reasoning to remove it; hence, the importance of being kind, attentive, and faithful to every one in school.

SCOFFING.—This is a general way of expressing contempt, and may be done by gibes, jeers, sneers, opprobrious language, or contemptuous looks. To scoff at religion is to set at naught all thoughts of decorum, and to openly avow the little estimation in which it is held.

SCOLDING.—To utter harsh, rude, or boisterous rebukes, sharply and in a coarse manner, is to lessen our influence over those whom we would exercise our control. Socrates who had a scolding wife said that he became so accustomed to expect it that a scolding offended him no more than the noise of carriages in the streets.

SCORN.—Scorn implies the stripping of all honors and exposing to derision, which situation is the cause of scorn. Scorn marks the sentiments of a little, vain mind, as a beautiful woman looks with scorn on her whom she despises for the want of this natural gift.

SEATS.—Should a lady offer to seat herself beside a gentleman, he should rise at once and give her the choice of seats.

When offered a seat in the street car, accept the same with audible thanks.

A lady, an elderly person, or an invalid is entitled to the most comfortable seat and position in the room.

When calling, it is disrespectful to the lady of the house for one to offer to another the seat assigned himself.

Unless reserved, or with a lady, gentlemen should vacate their seats in favor of ladies or elderly gentlemen who may be standing.

SECRETS.—The only absolutely safe way of keeping secrets is not to impart them to any person. As a rule, the truest, safest, and best confidants are the mother, the father, and the teacher.

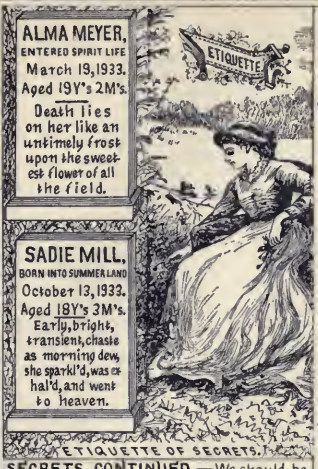
One should be exceedingly careful of the secrets of the family where he lives; from whence hardly the most indifferent circumstance must be divulged.

Too great care cannot be exercised in seeking the confidence of others; for, if the secret entrusted should happen to take air, though we be innocent of its disclosure, it is odds but it is imputed to our infidelity. However, if a trust be reposed in us, we should suffer torture, rather than disclose it.

We should be cautious about our own designs, and never talk about them until they have taken place, and even then exercise a reasonable silence, lest it should prejudice our future actions. To proclaim one's skill, is to beat an alarm to those with whom he deals, for he that draws his sword puts every-body else on his guard.

We should regard every matter an entrusted secret, which we believe the person concerned would wish to be considered as such; emphatically, all entrusted secrets which would bring scandal upon another if told, and which it is not our certain duty to discuss.

Generally speaking, a man keeps another person's secret better than his own, but a woman keeps her own secret though she blabs all others; a fool tells a secret because he is a fool; a knave tells it because it is to his interest to do so; a young man tells it from the vanity of having been trusted; and a young woman tell it because the other two of the three are not dead, she can't help it—it is so hot that it burns its way out.


ALMA MEYER,
ENTERED SPIRIT LIFE
March 19, 1933.
Aged 19Y's 2M's.
Death lies on her like an untimely frost upon the sweetest flower of all the field.
SADIE MILL,
BORN INTO SUMMER LAND
October 13, 1933.
Aged 18Y's 3M's.
Early, bright, transient, chaste as morning dew, she sparkl'd, was exhal'd, and went to Heaven.
ETIQUETTE
ETIQUETTE OF SECRETS.

SECRETS, CONTINUED.—We should be very modest in urging a friend to discover a secret, as it may expose him to somebody's displeasure when it is afterward learned that he was the object of our confidence. Our desire for aid or for sympathy should not be indulged by dragging other people into our misfortunes.

For a lady to divulge, even to her most intimate friend, her non-acceptance of an invitation from a gentleman, or the rejection of a proposal, or even the contents of any of her love letters, is a horrid outrage upon the most holy and exalted feelings of the human soul; it is a vulgarism and wickedness to be compared to blasphemy. That a gentleman is often injured, or wronged, and his feelings trodden upon, by such disclosure, adds but a blacker dye to one of the meanest things that a woman can do.

SELF-CONCEIT.—Self-conceit is a vicious habit of the mind. Such a person is always much concerned about right and wrong, but it is only that which he conceives to be right or wrong. Self-conceit is needed to discover or imagine faults; and it is much easier for an ill-natured man than for a good-natured man to be sharp and witty.

SELF-CONFIDENCE.—Self-confidence is at the same time a virtue and a vice. As a virtue it is the first requisite of any great undertaking; it is the great characteristic of men of active genius, not springing from self-conceit, but from an intense identification of the man with his object, lifting him above the fear of danger, and communicating an almost superhuman audacity to his will.

As a vice it is the badge of ignorance and the curse of fools. It is a petty pride in one's own narrowness. As a self-conceited person thinks only of his own opinion, a self-confident person refuses the assistance of every one in whatever he is called upon to do.

SELF-CONTROL.—To reign within one's self, and rule his passions, desires, and fears, is to exercise a rare and valuable accomplishment. To conquer self is to avoid ruin on the side of our natural propensities.

SELF-DENIAL.—It is safer and wiser to somewhat abate our lawful enjoyments, than to gratify our desires to the utmost extent of what is permitted. Self-denial is indispensable to a strong character, and there never did and never will exist anything permanently noble and excellent in a character without it.

SELF-ESTEEM.—He who fancies himself an abstraction of excellence, so far from being great, may be assured that he is equally ignorant of excellence or defect of himself or others. One's opinion of himself wants distance, time, and numbers to confirm it. Whoever knows not where to look for truth, save in the narrow well of self, will find his own image at the bottom, and mistake it for what he is seeking.

SELF-POSSESSION.—

To be able to restrain our feelings, to master our passions, to steady our nerves, and to command suitable language for every occasion is invaluable. The different temperaments of people are unfavorable to success in good society. Though habits of giving vent to our malevolent feelings, nervousness, etc., be difficult to overcome, an easy, graceful, self-balanced behavior is attainable by every one who will try earnestly and perseveringly to acquire it.

SELF-RESPECT.—One who will abandon himself is not worthy of admiration. True self-respect is not to think of one's self too highly, and may be regarded as the corner-stone of all virtue.

SELF-SACRIFICE.—Every one who has come to true greatness has felt in some degree that his life belongs to his race and not wholly to himself. All material things may easily be given away, but when a man makes a gift of his daily life and practice, it is plain that the spirit of self-sacrifice has taken possession of him.

SELFISHNESS.—When we are nurturing selfishness at the expense of the happiness of others, we are cheating no one else as much as ourselves; for one who is selfish sacrifices the nobler for the meaner ends, and must be sordidly content therewith. Those who deny others everything are infamous for refusing themselves nothing.

SENSE.—With men of capacity, young men may not only improve their understanding by conversing, but may have the benefit of their whole judgment and experience, whenever puzzled by any difficulty. Men of superior sense and candor will always exercise a ready and flowing indulgence towards those who entreat their favor, and are never more pleased than when they have an opportunity to make their talents more serviceable to mankind. Prudence, address, decorum, correctness of speech, elevation of mind, and delicacy of manners, may be learned in this noble school.

SENSIBILITY.—The keenness of sensibility is shown from the fact that there are moments when petty slights are harder to bear than even a serious injury at other times. Its delicacy is seen in that the heart that is soonest awake to the flowers, is always the first to be touched by the thorns. When sensibility is ill-directed, or uncontrolled, it is a snare, and the source of every temptation.

SERVANT.—When at the table, speak distinctly and politely to the servant. If you wish to be helped, ask, "Will you please help me,——?" If you do not desire what is offered you, say, "No, I thank you." A servant should never be reproved in the presence of company. The best way to have a good servant is to let him know that he has a good master.

SEXES.—

MAN.	WOMAN.
Is bold	Is beautiful
Is courageous	Is timid
Labors in the field	Labors at home
Talks to persuade	Talks to please
Has a daring heart	A tender and loving one
Has power	Has taste
Has justice	Has mercy
Has strength	Has love
Combats with enemy	Prepares his repast
Struggles with world	Sweetens his existence.
He has crosses	She softens them
His days are sad	She comforts him.
Distinguished by truth.	Disting'd by purity.
Keeps others' secrets.	Keeps her own secrets.
Seeks independence.	Solicits confidence.
Challenges attack	Flees from assault.
Cultivates foresight.	Reposes in the present.
Profanes God's name.	Reverences it.

SHAKING HANDS.—

This is one of the four forms of salutation (q.v.). In thus saluting, the hands should be grasped firmly for only a moment, without any display of force, and after shaking moderately, released.

Always remove the glove in offering the hand to a friend in the house, but in the street the glove may be retained by apologizing for the covered hand.

A gentleman does not first offer to shake hands with a lady, unless very familiar; it is her privilege.

Shaking hands with a person to whom you are introduced is optional. (See Introduction).

SHAME.—Shame is the direct consequence of misconduct. Those who yield to their passions, or are hardened in their vicious courses, are insensible to both shame and disgrace. One who has lost the sense of shame has lost himself. Of all evils to the generous, shame should be looked upon as the most deadly pang.

SHINING.—One should not endeavor to shine in all companies, but leave room for his hearers to imagine something within him beyond what he has said.

SHAVING.—Those who shave should be careful to do so often, as nothing looks worse than a stubby beard. If a man's beards are very strong, he should shave from two to three times a week, and always the day on which he attends a party during the evening.

SHE.—One should avoid using the words "she" or "he" accompanied by a nod or a jerk of the thumb in the direction of the person spoken of, but repeat the name of the lady or gentleman.

SHOES.—Easy, well-fitting shoes or boots, with good, broad heels, half an inch in height, are not only a preventive, but a cure for corns. High, pointed or narrow heels should never be worn by ladies. The shoes for the street should be high, warm, and easy to the feet, and should always be neatly blackened and polished.

Should a lady's shoe become unlaced, a gentleman in whose company she is, should not fail to apprise her of it, respectfully, and offer his assistance. A gentleman may lace a shoe or hook a dress with perfect propriety, and should be able to do so gracefully.

SHOPPING.—When visiting stores for the purpose of examining or purchasing goods, one should be courteous and affable. Speak with kindness to the clerks, politely requesting (not ordering) them to show any article. Give them no more trouble than is necessary, and thank them for the attentions they have shown. On approaching or leaving their counter, say pleasantly, "Good-morning," or "Good-day."

Never attempt to "beat down" the price of an article. If the price does not suit, there is no obligation to buy, and there is always a privilege of going elsewhere.

Avoid expressing an opinion about an article or its price another is purchasing, unless requested to do so; as this would be offering a gratuitous insult to the clerk making the sale.

Wait patiently for your turn if others be in advance of you. Never make unfavorable comparisons between the goods you are examining and those of another store.

SHOW.—When we speak of a thing as mere show, it is signified that what is shown is all that exists, and may be termed mere outside, as consisting only of what is on the outside.

A man makes a show of his equipage, furniture, etc., by which he strikes the eye of the vulgar, and seeks to impress them with an idea of his wealth and superior rank. This is often the paltry refuge of weak minds to conceal their nothingness.

SHUNNING.—Shunning consists simply of going out of the way, or avoiding a meeting or coming in contact. If for any reason any one has made himself offensive to us, we may shun him by turning into another road, but it would be more manly in many cases to face him, unless danger is anticipated.

SHYNESS.—Shyness is disinclination to familiarly approach any one. It is very ungraceful, and a positive injury to any one afflicted with it. A person who blushes, stammers, and fidgets in the presence of strangers will not create a very good impression upon their minds as to his personal worth and educational advantages. Shyness may be overcome by a determined mixing in society. One who knows the world will not be troubled with shyness.

SICKNESS.—All are liable to be sick, necessitating the careful attendance of others during the period of disability. This care usually devolves on women, and none should consider themselves exempt from the charge. Experienced nurses may be employed, but the anxiety and responsibility is still with the mistress. Affection, thoughtful care, and all those little attentions which make the sole comfort of an invalid, cannot be secured through a hired nurse, who is only a species of human machine that mechanically performs its duties. There are few excellent and kind-hearted professional nurses, but many who have become, as it were, petrified by the habitual contemplation of suffering, and who merely regard the patient with a business-like eye. The kindness and attention of the nurse often work far greater marvels than the skill of the physician; for she is there every hour, sees every change, and can minister to every little want. The distinguishing characteristics which will best adapt a nurse for fulfilling her duties are, gentleness, watchfulness, firmness, judgment, delicacy of feeling, and a truly Christian spirit.

SIDEWALK.—Any obstruction of the sidewalk by holding long conversations thereon, is very discourteous. The right of every person to his share of the sidewalk should be respected. It is only the rude, low-bred woman, or the blustering bully that assert their vulgarity by refusing to give the half of the pavement. It is better for a lady or gentleman to leave the sidewalk than to come in collision with such Hotspurs.

In order to avoid the inconvenience and danger of a collision, persons should keep to the right when passing each other on the pavement.

SIGNATURE.—A scrawling signature, like long hair, does not constitute genius. One should be careful how he draws upon himself the ridicule of being a shallow pretender by adopting it

SILENCE.—When one keeps silence, sometimes, upon subjects of which he is known to be a judge, his silence, when from ignorance, will not discover him.

There is no time that silence shows itself to greater advantage, than when it is made the reply to base calumny and defamation.

SIMPLICITY.—It will be found that the simpler, and the more easy and unconstrained one's manners, the more he will impress people with his good breeding. Affectation is one of the brazen marks of vulgarity.

A well-educated and finely cultured person proclaims himself by the simplicity and terseness of his language. (See Dress).

The supreme excellence in character, in manners, in style, briefly, in all things, is simplicity. Simplicity and purity may be regarded as the two wings with which man soars above all that is gross, vulgar, and unrefined. Simplicity is in the intention, and purity in the affection.

SINCERITY.—To create confidence in those with whom we deal, and save the labor of making many inquiries, we should speak as we think, do as we pretend and profess, perform and make good what we promise, and really be what we would appear and seem to be.

SINGING.—Avoid singing, humming or whistling to yourself, in walking.

If requested to sing and play for the entertainment of the company, do so promptly without having to be urged.

SITTING.—Gracefulness should be studied in sitting the same as in other actions. We should never assume a lounging position, but sit erect, yet not stiff and ungainly. Do not extend the feet, spread them apart, or rest them on the rungs of the chair. Never sit astride of a chair, nor tilt it back against the wall or furniture.

SLANDER.—Any false report, maliciously put in circulation to injure another's good name, is slander. It is in the associations of society that slander is most frequently met with; as here, jealousy, envy, and anger have most to excite them to activity. Bad passions, and the abnormal desire of telling news, are responsible for this unfortunate form of falsifying. No practice is more dangerous to individuals and to society, since neither purity, innocence, nor integrity is proof against the poison of a malicious tongue.

SLANG.—Avoid as hateful all use of slang terms; they are too suggestive of low company and associates; they are the cant of sharpers, and the lingo of vulgar people. To use slang habitually and knowingly, is a sign of coarse association, a gross mind, and poverty of language.

In addition to the slang of the lower classes, or of out-door life, there is the slang of the drawing-room; in short, every profession has its own set of expressions, which should be avoided in general society.

SLOTH.—Sloth is torpidity of the mental faculties. It is an inlet to various disorders, which make way for licentiousness. People who have nothing to do, are characterized by slothfulness, and soon become tired of their own company.

SMILES.—A smile embellishes an inferior face, and redeems an ugly one; but the "perpetual smile" should not be tolerated. A habitual smile becomes insipid. If the mouth be allowed to break into a smile on one side, while the other side remains passive and unmoved, there is imparted to the face an air of deceit and grotesqueness. A disagreeable smile distorts the lines of beauty, and is more repulsive than a frown. Of the many kinds of smiles, some announce goodness and sweetness; some betray sarcasm, bitterness, and pride; some soften the countenance by their languishing tenderness; and others brighten by their spiritual vivacity.

SMOKING.—Gentlemen do not smoke when driving or walking with ladies, nor on promenades much frequented, where they can not remove the cigar from the mouth whenever they meet a lady.

Should a lady assure a gentleman that smoking is not offensive, he has no right to presume on her forbearance in that matter, and give the impression to those who pass that they are both devoid of the culture exhibited by well-bred people.

A gentleman will not at any time smoke in the parlor, though there be no others present.

It is ungentlemanly to smoke at all in public, and none but a ruffian will inflict upon society the odor of a bad cigar.

SNEERS.—Sneer is connected with sneeze and nose, the member by which sneering is performed. One who sneers at another or at religion, does so somewhat slyly, but his malignity is none the less. He wishes to bring the object into contempt, but leave himself free from any appearance of contempt. A sneerer is the most contemptible of contemptible objects. It always marks the egotist, the fool, and the knave.

SNEEZING.—Sneezing being an involuntary act, is unavoidable. If obliged to sneeze when at the table, apply the napkin or handkerchief to the face and turn the head from the table.

SNIFF.—The "sniffy" woman, whether at home or abroad, impresses the true gentlewoman as of low origin.

SNOBS.—For one to affect to be better, richer, or more fashionable, than he really is, is snobbery. He who meanly admires a mean thing, or forsakes his own friends, meanly to follow after those of a higher degree, is a snob.

SOCIABILITY.—There are always those who are embarrassed more or less from a lack of self-possession, and thereby prevented from being as sociable as they would otherwise be. This being true, we should bear in mind that it is our duty to assist in entertaining and making others happy. The aged, the sick, and the deformed should receive particular attention. A kind word and a pleasant smile should be ready for every one.

SOCIABLE.—At the sociable or small party, is manifested all the striking phases of character. The excitement incident to such an assemblage tends to exhibit the natural dispositions of each individual. Those in attendance should avoid being noisy, rude, or inconsiderate, as well as cold, formal, and constrained. Games and amusements of various kinds are brought into requisition, that all may contribute to the enjoyment of the occasion.

SOCIAL CIRCLE.—It is only those persons and families whose position is not a secure one, that are afraid to be seen outside their own social circle.

SOCIAL LAW.—Social law may be defined as a rule of action prescribed by good society, commanding what is right and prohibiting what is wrong in the intercourse of its members. This law is based upon the principles of morality, and is known under the name of politeness. The law requires that we exercise our faculties to secure the approbation, and as far as practicable, the admiration of all with whom we come in contact. Right thinking and acting are necessary to the formation of those habits of body and mind, without which good manners would exist only in name.

SOCIETY.—All irritability and gloom must be thrown off when we enter society. It may be compared with a lawn, where every roughness is smoothed, every bramble eradicated, and where the eye is delighted by the smiling verdure of a velvet surface.

Society, unlike the State—governed by statutory laws, has only one law, and that is custom. Obedience to it is mandatory, else the consequences must be suffered. Popular privileges are consistent with great inequality of rank and position.

SOLITUDE.—It seems that a certain degree of solitude is necessary to the full growth and proper development of the human mind. Solitude should be allowed to take its turn with company: the one creates in us the love of mankind, the other that of ourselves. Solitude relieves us when we have become wearied from company, and conversation when we are weary of being alone.

SORROW.—Sorrow arises from the untoward circumstances which perpetually arise in life. A disappointment, our own mistake, or the negligence of others, cause sorrow. Sorrow is not without its uses. We darken the cage of a bird to make it sing; night brings out the stars; and sorrows reveal to us many truths. A small grievance makes us beside ourselves, and a great sorrow makes us retire within ourselves.

SOUP.—At the table, soup is always first served—one ladle to each plate. Eat it from the side of your spoon. Do not take it too hot; and do not ask twice for it, dip up the last spoonfuls, or tilt your plate to get at it. Never blow into it to make it cool.

SPEECH.—It is well to remember that frequently where "speech is silvern, silence is golden."

While speaking, do not loll about, scratch your head, or fidget with any portion of your dress.

Avoid speaking when others speak, and let your discourse with men of business be short and comprehensive.

Whoever indulges in too much freedom of speech, is likely to hear something in return that he will not like.

When speech is properly used, our wants are concealed to a greater extent than they are expressed.

SPITE.—Spite, though a little word, represents as strange a jumble of feelings and compounds of discord, as any word in the English language. Spite denotes a petty kind of malice, or disposition to offend another in trifling matters. Grudge is spite that has long existed. Rancor is continued hatred. Malice is the love of evil for evil's sake. Pique is spite that is of recent date. All of these feelings are indulged to gratify a private appetite, and represent littleness and ignorance.

ETIQUETTE

SPITTING.—Spitting is a filthy habit, and annoys one in almost every quarter, in-doors and out. The spitting connected with the use of tobacco detracts very greatly from its enjoyment. No refined person will spit where ladies are present, or in any public promenade; the habit is disgusting in the extreme, and one would almost wish that it could be checked in public by means of law. All that can be hoped is that those addicted to the indulgence will neither interfere with their neighbors' rights nor offend their tastes. No gentleman will spit in company, upon the carpet, or on the stove. Notwithstanding that spittoons are provided in most parlors and sitting-rooms, it is a sorry confession that some visitors are selfish, ill-bred people.

SPOON.—When the fork is not suitable for conveying the food to the mouth, always use the spoon. If there be a separate spoon or butter-knife for each dish and butter-plate on the table, it is considered impolite for a guest to help himself with his own knife or spoon when wanting sauce or butter. In the absence of such, the guest must be careful to clean his knife or spoon upon a slice of bread before using it.

SPY.—A spy or emissary is appointed to secure information concerning another's movements and plans. The emissary mixes with the people to whom he is sent, but the spy keeps at a distance from all but such as may aid him in his object. If spies and emissaries are dishonorable and disgraceful in time of war, they are much more so in business and social circles, where their objects are almost wholly illegitimate.

SQUEAMISH.—One who is foolishly sick or easily disgusted is said to be squeamish. A female is squeamish in the choice of her own dress, company, words, etc. A cure for squeamishness is restraint of humor and caprice.

SQUEEZE.—It is impolite to squeeze the hand of another so closely as to display force, when shaking hands.

To squeeze another in order to get that which is given with reluctance or difficulty, is extortion.

STABILITY.—Stability respects the opinions; constancy, the affections; steadiness, the action or the motives of action; and firmness, the purpose or resolution.

Stability prevents from varying, and bears up the mind from all of the movements of levity or curiosity, which a diversity of objects might produce. Stability of character is to be coveted in all cases, and is essential for those who are to command; for one who cannot govern his own thoughts cannot govern others.

STAIRWAY.—Even if not acquainted, a gentleman may always bow to a lady whom he may meet on a stairway; if at the foot of the stairs, he must bow, pass her, and ascend before her. If at the head of the stairs, he must bow and wait for her to precede him in the descent.

STANDING.—When standing in company, restlessness should not be manifested by continually changing the position of the feet, and by springing the ankles from side to side. To turn the back toward any of the company, or to pass between them and the fire or stove, is discourteous; if obliged to do so, we should politely apologize for the necessity. Leaning against each other, or resting the foot upon a chair or its rung, is very impolite. It is very ungraceful to stand in company with the hands in the pockets.

STAMMERING.—To stammer, stutter, falter, or hesitate, each signifies a defect in utterance. Stammer or stutter arises either from an incidental circumstance, or from a physical defect in the organs of speech; hesitation results from the state of the mind, and an interruption in the train of thoughts; falter is caused by a perturbed state of feeling.

As it places one to a great disadvantage to be annoyed by any of the foregoing imperfections, and as they can be overcome in most cases, he should strive constantly to avoid them by practicing voice-culture.

STARING.—Staring and gaping are both taken in a bad sense. Staring indicates not only ignorance, but impertinence; gaping indicates the astonishment of gross ignorance. One who stares at every woman at whom he looks, outrages the countenance of modesty; he who stands gaping at the things at which he is looking, is a clown.

STEPPING.—Persons walking in company should always keep step together. Gentlemen in walking with ladies, must shorten their steps, and the ladies lengthen theirs.

STINGINESS.—One who looks to every penny in the bargain he makes, gets the name of niggard; one who spends a dime on himself, where others with the same means spend a dollar, does it from parsimony; one who is dead to everything but the treasure he has amassed, is a miser. Society is not in need of these characters.

STORY-TELLING.—An inveterate teller of stories is a great injury to a man in society. There are two unavoidable defects in story-telling, viz., frequent repetition, and the tendency of being too soon exhausted. A good memory and a frequent shifting of company, are requisites to him who values this gift.

STRANGERS.—One should show his discretion in not becoming too intimate with strangers at first. If a stranger approach you, and try to make himself unduly intimate, give him a place in your suspicion.

When strangers enter a community for the purpose of visiting or securing a home, politeness requires that those desiring to make their acquaintance, shall manifest their disposition to be sociable, by giving them a first call. When the call is made, a polite invitation should be given to return the compliment, which should be done as early as is convenient.

STREET.—One's conduct on the street should always be modest and dignified. All loud and boisterous conversation or laughter, and all undue liveliness, are improper.

Walk erect, with dignity, and avoid reading a book or newspaper. Always recognize your friends, and when stopping to talk with them, withdraw to one side. If they be accompanied by strangers, apologize for the interruption; if you be attended by a friend, never leave him without asking him to excuse you.

In walking with a lady, give her the safer part, which is usually the inner side. Your arm should not be given to a lady, except your wife, a near relative, or a very old lady, during the day, unless her comfort and safety require it. At night the arm should always be offered.

If a lady ask information of a gentleman, he must raise his hat, bow, and give the desired information, or courteously express his regrets if unable to do so.

A gentleman meeting a lady acquaintance, must not presume to join her in her walk without asking permission. Gentlemen give place to ladies in crossing the street.

Ladies do not walk very rapidly, and are not expected to recognize a friend on the opposite side of the street. (See Bowing, Carriage, Introduction, Riding, Sidewalk, and Walking).

STRIFE.—Strife springs from a quarrelsome temper. Where bad tempers are under no control, and are allowed to come into frequent collision, continual strife is the consequence.

STUBBORNNESS.—Stubbornness is a perversion of the will; the stubborn person wills what he wills, he follows the ruling will or bent of his mind, without regard to any opinions; he is not to be turned by force or persuasion, is insensible to all reason, and unconscious of everything, but the simple will and determination to do what he does.

Obstinacy is attachment to one's own mode of acting, and is a habit of the mind. An obstinate person is not hasty in forming his opinions, nor does he adopt them without a choice; but when once embracing an opinion, he keeps it in spite of all proof. Obstinacy interferes with one's private conduct, and makes him blind to right reason.

Headstrong relates to a perversion of the judgment; the headstrong person thinks what he thinks, and his temper is commonly associated with violence and impetuosity of character; he seizes the first opinions that offer, and acts upon them in spite of all remonstrance.

STUDIO.—One should not visit the studio of an artist except by special invitation or permission; and avoid meddling with anything in the studio

Never keep the artist waiting, if you have an engagement to sit for your portrait; and never stand behind him watching him at his work.

To criticise in the presence of the artist the works displayed, is excessively ill-bred; so, too, is extravagant praise. Show your approval and appreciation by close attention and a few quiet, well-chosen words.

Never look around the studio examining the works unless you are invited by the artist to do so.

Never ask to see an unfinished picture; and avoid whispering, as it conveys the impression that you are ridiculing or criticising some of the works you have been invited to examine.

Too great inquisitiveness regarding the prices, or whose is, or what is sh's' etc., must be avoid If the work be a valuable one, it is best to simply ask the refusal of it, and trust the negotiation to a third party, or a written correspondence after the visit is concluded. If you wish to conclude a bargain at once, ask the price, and if it be larger than you are disposed to give, you may say as much, and name the sum you are willing to pay, that the artist may accept your offer or maintain his price.

STUPIDITY.—Stupidity expresses an amazement which is equivalent to a deprivation of the understanding; it is a natural quality, yet a particular circumstance may similarly effect the understanding

Dullness is an incidental quality, arising from the state of the animal spirits; at times one may be dull who is otherwise vivacious and pointed.

STYLE.—It matters not whether in speaking or writing, style is a pretty true index of the character of the man. Proper words in proper places, and well-couched sentences, always grasp the sense and understanding. Though one's thoughts are ever so just, if his style is homely, coarse, and vulgar, they will appear to as much disadvantage, and be as ill received, as his person, though ever so well proportioned, would, if dressed in dirt, rags, and tatters.

SUBJECTS FOR CONVERSATION.—The subjects of conversation, and the method of handling them, should be so ordered as not to offend either directly or indirectly. The golden rule is "Adapt the subject to the company." All subjects, as politics or religion, likely to excite argument, or to lead to warmth of feeling or expression, must be avoided. Talk of yourself and your own affairs as little as possible; those of the personages you are addressing are sure to interest them far more. Nothing is more vulgar or offensive than to drag in the names of distinguished persons to whom you may be related, or who may be numbered among your friends.

SUPERIORS.—An attempt at imitating one's superiors is folly, and will make inferiority more conspicuous.

In conversing with either superiors or equals, do not address them by name. Remember that greater liberties can with propriety be taken by a superior towards an inferior, than by an inferior towards a superior.

One's manner, tone of voice, and conversation to his superiors should be humble, modest, and respectful. To interrupt the discourse when a superior is speaking to another, or to correct or assist his memory, is very disrespectful.

Familiarity from a superior to an inferior is not only tolerable, but is obliging; but from an inferior to a superior, especially where there is no degree of intimacy, is not only unbecoming, but insolent.

The faults of superior men, like the eclipses of the sun and moon, are seen by everybody, they change, and all men look up to them. Even their satellites, the boys, are the worst boys in the community, simply because the superior light of the primaries causes their faults to stand out in bolder relief than those of the other boys of the community.

SUSPICION.—Suspicion implies a fear of another's will, intentions, or power to dispossess one of some object of desire. The suspicious man always thinks ill of both the integrity and sincerity of his opponent. Generally speaking, those who suspect the most know the least.

SWEARING.—Whoever has no conscience for swearing vainly, soon will have none for swearing falsely. If he wishes to degrade himself to the very lowest level of pollution and shame, let him learn to be a common swearer. No one ever reaped any benefits from profane swearing—he is not richer, or wiser, or happier for it. It helps no one's education or manners; it commends him to no society; it is disgusting to the refined, and abominable to the good; it is insulting to those with whom we associate, and degrading and unprofitable to the mind; it not only opens the door to perjury, but of all offences, is the most awful in the sight of God.

SYMPATHY.—Sympathy is fellow-feeling, and may be said either of pleasure or pain, for we laugh or cry by sympathy. By attention and exercise, sympathy may be improved in every one. It prepares the mind for receiving the impressions of virtue, and without it there can be no true politeness. The insensibility which wraps one up in himself and his own concerns, preventing his being moved by either the joys or sorrows of another, is most odious. When a man has a partner of his joy, it is doubled; if he has a friend who shares his sorrow, it becomes but a moiety.

TABLE.—A neglect to conduct one's self with the strictest regard to good breeding in the privacy of his own home, while at the table, will render him stiff and awkward in society. Dining almost ranks as one of the Fine Arts, and it is regarded as one of the strong tests of good breeding. The rules to be observed at the table require the most careful study, as none of them can be violated without exposing the offender to instant detection.

When the meal is ready the master of the house rises and requests all to pass into the dining room, to which he leads the way. Having arrived at the table, the host sits at the foot of the table, and the hostess at the head.

At the table, as well as at all other places, the lady takes precedence of the gentleman. Gentlemen should stand behind their respective chairs until all the ladies are seated, and then take their own seats

A guest must never find fault with any dish placed before him. He should always say "thank you," not "thanks," to a waiter, nothing more. When asking a waiter for anything, request and do not command.

Never select any particular part of a dish, unless requested to do so, in which case it would be uncivil to refuse.

TABLE, CONTINUED.—*If there are some things that are really very nice, it is well to speak in their praise; but a guest should avoid praising every dish set before him. All seeming indifference should be avoided.*

If wine is served, and a guest does not partake of it, do not make any discourteous remarks or reflections, but simply say, "Not any, thank you," and the waiter will not fill your glass.

Assume an easy position at the table, sitting firmly in the chair, neither too close nor too far away. Do not extend your feet so far under the table as to touch those on the opposite side, or curl them up under the chair, or place them on the chair rung.

When you send your plate away from the table, remove the knife and fork and allow them to rest upon a piece of bread. Do not be in a haste to commence eating, yet it is not necessary to wait till all are served before commencing. Eat moderately and slowly.

Bread is the only comestible that should be laid off your plate upon the table cloth. Above all others, the table is the place to introduce pleasant words and social chit-chat.

Avoid carrying fruit or bonbons away from the table. Never scrape your plate, tilt it to one side to get the last drop of anything, or wipe it out with a piece of bread. Never bite fruit, but use the knife for paring. It is proper to offer to divide a large pear or apple with or for a person.

Never use the table cloth to wipe your mouth or fingers. (See Knife and Fork, Spoon, Cup and Saucer, Napkin, Soup, Desert, Food, Nose, Mouth, Coughing, Sneezing, Elbow, Guests, Hostess, Picnic, Hotel, and Children. For form of invitations to dinners, etc., see Index).

TACT.— The principle of tact is kindness, and the first condition of skill is respect for others. Tact teaches one when to speak—when to be silent. It has been said that talent is something, but tact is everything; it is not an additional sense, but is the life of all the five—it is the open eye, the quick ear, the judging taste, the keen smell, and the lively touch; it is the interpreter of all riddles—the surmounter of all difficulties—the remover of all obstacles. It is useful in all places, and at all times: it is useful in solitude, for it shows a man his way into the world; it is useful in society, for it shows a man his way through the world.

TALENT.— Talent causes one to be serious, sober, grave, and respectable: it opens his way clearly, leads him into learned and logical discourse, and enables him to do with ease what others do with difficulty.

TALKATIVE.— Talkativeness is the disease of age, and the folly of youth. Experience has given an old man subjects upon which to talk, and inexperience allows a young man to create his subjects for the occasion: the second childhood of age suffers the old to be talkative, and the heyday of youth tolerates the loquacity of the young.

For the impolite to talk and chatter and simper, in company or at a public assembly, is to give intense disgust and annoyance to those who are discriminating and intelligent. No well-bred people will disrespect the rights and feelings of their neighbors by indulging their own selfishness in this manner.

TARDINESS.— To see men and women enter a hall or church after the exercises have begun, conveys the impression that they are either utterly ignorant of the proprieties of the place, or are indifferent to the rights of those present. For a lady who is tardy to deprive a gentleman of his seat, and then not even have the politeness to acknowledge the courtesy, stamps her as being coarse in manners and selfish in feeling.

TASTE.— Taste designates the capacity to derive pleasure from an object by simply coming in contact with it, and consists in the power of judging; it means a general susceptibility to truth and nobleness, a sense to discern, and a heart to love and reverence all beauty, order, goodness, wherever, or in whatever forms or accompaniments, they are to be seen. Though taste is reckoned among the smaller and secondary morals, it is of no mean importance in the regulation of life. A moral taste recommends virtue with something like the blandishments of pleasure.

TATTLER.— To tell the faults of another merely for the love of gossip, or for the pleasure derived from his punishment, is most contemptible. One who, through envy, jealousy, or malice, can derive pleasure from another's pain and mortification, is the most dishonorable and despicable of persons. The tattler has no good motive, and is entirely unworthy of respect and confidence. Never repeat the mere opinions of others.

TEARS.— Tears enable sorrow to vent itself patiently, and prevent it from becoming despair and madness. The sacredness in tears shows them not to be a mark of weakness, but of power, which is shown in the fact that they are the messengers of overwhelming grief, of deep contrition, and of unspeakable love. One should not hide his tears from the fear of being regarded weak and childish, but be proud to give to virtue its manly and natural way, thus revealing an honest heart. Shame on those whose hearts of stone will not melt at another's sorrow.

TEASING.— To tease implies the acting upon another so as to produce a painful sentiment. The repetition of unpleasant trifles teases, as the buzzing of a fly in our ears, or the mischievous pleasures indulged in by children. Irritable and nervous people are most easily teased. To torment signifies something more serious, as we are tormented by the importunities of beggars. We are vexed at the stupidity and carelessness of a servant. A person who is fretful is most easily vexed. The sarcasms of others have the effect of taunting us. Fault-finding and captious people yield most readily to taunting. When fair prospects present themselves and then disappear again, we are tantalized. Sanguine and eager people are most easily tantalized.

TEETH.—Fine teeth may be considered one of nature's most beautiful gifts. Etiquette requires that they be kept in good order, and preserved clean, pure, and sweet. When disfigured by tartar collections near the gums, they should be cleansed by applying a preparation of pulverized charcoal and common salt, with a soft tooth brush. When the teeth are decayed, they should be examined by a dentist, that the decay may be arrested. A wooden or quill toothpick should be used just after each meal to remove any particles of food remaining in the mouth. They should be subjected to a brushing at least once a day—after the last meal.

Picking the teeth at the table is vulgar, and sucking them offends fine sensibilities.

TEMPER.—If a cheerful temper is joined with innocence, beauty is made attractive, knowledge delightful, and wit good-natured. There is no obstacle to advancement or happiness so great as an undisciplined temper—a temper subject to pique and uncertainty. It renders one regardless of the interests all around him.

TEMPERANCE.—Temperance is the regulation of our words and actions to the circumstances. A temperate man enjoys all in due proportion; his regular habits being the most efficacious means of keeping both body and mind in the most normal state. A well disciplined mind is the first requisite of temperance. Abstinence respects everything that acts upon the senses, and has particular reference to solid food. An abstinent man avoids drinking or eating as much as he could enjoy. The true purpose of abstinence is to place the mind above the appetites, in which sense it is a virtue; if unlimited, it becomes a vice. Sober implies an abstinence from excessive drinking. Sobriety is often dependent upon the strength of the constitution, and may be prescribed by prudence: it is a virtue in every sense, and cannot be too highly esteemed by all classes. Abstemious implies a total abstinence from wine or strong liquor in general. An abstemious man drinks nothing strong: it is not uncommon for persons to practice abstemiousness to that degree, as not to drink anything but water all their lives. Moderation is the measure of one's desires, one's habits, one's actions, and one's words, and adopts the medium or middle course in thinking. It shields one from mortifications and disappointments, and conciliates the esteem even of an enemy and a rival; it disarms the resentments of those who feel themselves most injured by another's superiority, and pleases all by making them at ease with themselves. Moderation protects a man equally from injustice on the one hand, and imposition on the other; it diverts from all party spirit, and consequently assures such temperate use of language as to provoke no animosity. Modesty is a principle that acts discretionally, and consists of a fair and medium estimate of character and qualifications. It is a sentiment confined to one's self as the object, and consisting wholly of one's judgment of what one in reality is, and what one actually does.

TEMPTATION.—Temptation is for the most part taken in a bad sense, though we are tempted sometimes upon very fair grounds to undertake that which turns out unfortunately in the end. The prayer of every one who knows the force of bad habits, and the weakness of human nature to resist them, should be, "Lead us not into temptation, but deliver us from evil." To shun the allurements of vice, is the part of wisdom; to avoid placing temptations in the way of our neighbor, is the part of prudence and love. If social parties are made the occasions of wine drinking, thus leading the innocent and unwary into evil habits, and confirming those who have already acquired a taste for strong drink, they are to be shunned by all who have either respect for themselves or love for their neighbor.

TETE-A-TETE.—It is a breach of etiquette for a lady receiving several callers to engage in a tete-a-tete conversation with one.

THANKS.—One should express thanks for every act of civility he receives, even from a servant or a child. Such appreciation of kindness will win future favors and friendship.

A lady should always be careful to thank a person for any little attention he may bestow upon her while traveling.

At the table a guest should always say "Thank you," not "Thanks," to a waiter.

THAT PARTY.—One should avoid talking of any one with whom he has had intercourse, as, "that party," or "a party," of his acquaintance.

THEATER.—To ask a lady to accompany you to a place of amusement, and incur the risk of being obliged to stand during the performance, is to be inexcusably rude. If you are unable to secure a reserved seat, immediately inform her, and propose another occasion. (See Places of Amusement and Public Places).

THEY SAY.—Some persons in order to relieve themselves from the responsibilities of slander, take shelter behind an irresposible "THEY SAY."

"They say'—Ah! well, suppose they do;
But can they prove the story true?
Suspicion may arise from naught
But malice, envy, want of thought.
Why count yourself among the 'they'
Who whispers what they dare not say?

"'They say'—But why the tale rehearse
And help to make the matter worse?
No good can possibly accrue
From telling what may be untrue;
And is it not a nobler plan
To speak of all the best you can?

"'They say'—Well, if it should be so,
Why need you tell the tale of woe?
Will it the bitter wrong redress,
Or make one pang of sorrow less?
Will it the erring one restore,
Henceforth to 'go and sin no more?'

"'They say'—Oh! pause, and look within:
See how your heart inclines to sin.
Watch! lest in dark temptation's hour
You, too, should sink beneath its power.
Pity the frail, weep o'er their fall,
But speak of good, or not at all."

THINKING.—It is not uncommon for some persons to commence speaking before they know what they are going to say. The ill-natured world, who never miss an opportunity of being severe, declare them to be foolish and destitute of brains. What would you think of a sportsman who would attempt to bring down a bird before he had loaded his gun?

Watch your thoughts; train them, and keep them from running wild and useless. Of necessity the mind is ever active, there being no waking moment that ideas do not pass through it. The art of thinking, is not always that of creating, but of marshalling the thoughts, which else wander in a desultory, and, therefore, an ineffective, useless manner. To sit for five minutes utterly vacant is very difficult even to the most absent-minded.

Thinking is absolutely necessary in forming an opinion. Young persons who have not begun to think at all, are often guilty of using such expressions as "for my part, I think so, or so;" yet they are most apt to bolt out their opinions; whereas, they should positively feel afraid to express a judgment on any case which they have not considered.

THOUGHTLESSNESS.—Thoughtless denotes the want of thought or reflection about things. Thoughtlessness relates to matters of considerable importance, relative to one's conduct, and leads many into serious errors, when they do not think or bear in mind the consequences of their actions. Negligence consists in not doing what ought to be done. One is negligent in regard to business, and the performance of bodily labor, because of a lack of will. Persons of all descriptions, and especially those in low condition, are apt to possess the fault of negligence. Careless denotes the want of care in doing any thing. Carelessness is only occasional, and relates to trivial matters. One may not only be careless about doing what he does well, but may be careless in neglecting to do it at all, or careless even about the event itself.

TIMIDITY.—Timidity is a habitual state of the mind, and renders a person afraid of offending others, or of meeting with something painful from them. A person having such a disposition is prevented from following the dictates of his own mind.

TITLES.—If you are talking to a person of title, do not keep repeating the title. You can express all the deference you desire in voice and manner, to put it in words is unnecessary and snobbish.

In introducing foreigners with titles, always give the title. In introducing any one having a title, be careful to speak the title distinctly.

ETIQUETTE.

TOBACCO.— Those who have formed a habit of using this article, should remember that they do wrong to trespass upon the rights of those who do not use it. Since this indulgence has had its way so extensively among us, every youth begins to smoke and spit before he has well cut his teeth. The use of tobacco is unquestionably so great a pleasure to those who have become accustomed to it, that it must not be condemned, yet the filth connected with it, is enough to confiscate it in the judgment of refined people.

TONGUE.— Physicians examine the tongue to find out the condition of the body, and philosophers, to find out the condition of the mind.

TRAVELING.— As selfishness reaches its climax in traveling, each one desiring to secure his or her comfort, one's natural politeness is tested most thoroughly. Ordinarily courteous people become bent on making provision for themselves alone, and are careless of the comfort and rights of others. The relics of barbarism are visibly manifested at the ticket-office, the hotel counter, and the public table, in the rush for places.

All arrangements should be made beforehand—leaving nothing to chance—that you may be able to have your mind at rest during the journey, and be prepared to enjoy it to the utmost.

Baggage should be checked to its destination, care being taken that the number of the check on the trunk corresponds with that of the duplicate given you. At your destination it is safest to give your trunk to the person who solicits your check on the train, as he has the endorsement of the railroad company. Always take a receipt for your check.

Let your dress be simple, avoid display of jewelry, and do not unnecessarily expose your money and other valuables, for the lines of travel are infested with pickpockets and thieves. Be provided with an overdress or duster, an umbrella, and an overcoat, suited to the journey and the season.

Should a lady when traveling alone, be annoyed by any one presuming on her lack of an escort, she need only to appeal to the nearest gentleman to secure protection and assistance. The employés of the lines of travel are required to give particular attention to ladies traveling alone.

A lady may with propriety be placed under the charge of a friend, who, in accepting such a trust, becomes responsible for the lady's comfort during the journey.

Seeing a lady traveling alone, and in need of assistance, a gentleman should promptly and courteously offer it; which the lady may with propriety accept. She should as courteously acknowledge the kindness. The gentleman should never seek to form her acquaintance. Ladies should avoid making acquaintances, even with their own sex, in traveling.

On steamers, and at eating-houses on the route, avoid rushing for the table, but act with courtesy and deliberation. A gentleman should offer his seat to a lady, if all the other places are taken.

An overcoat or valise deposited on a seat in the absence of the claimant, is proof that the seat is occupied. You have no right to keep a window up for your own accommodation, if it annoys others. At the same time it is your duty to not object to this if you can conveniently find another seat.

To watch and look after other ladies younger and less experienced than themselves, and traveling without an escort, is especially the duty of every lady of experience.

When riding in an omnibus, or on a street-car, or in crossing a ferry with a friend, if he wishes to pay for you, allow him to do so without remark. You can return the favor at some other time.

Fellow-travelers should at all times be sociable and obliging to one another. Those who are otherwise, may justly be considered foolish, selfish, and conceited. The friendship which has subsisted between travelers terminates with the journey—a word, a bow, and the acquaintanceship is finished and forgotten.

TRAITOR.— Traitorous applies to one who betrays his trust, especially in his country or its rulers. Treacherous pertains to one's private relations. We may be treacherous to our friends as well as to our enemies, for nothing can lessen the obligation to preserve the fidelity of promise. A treacherous man throws us off our guard, by lulling us into a state of security, in order the more effectually to get us into his power; he pursues a system of direct falsehood in order to bring about our ruin.

TRESPASS.— The offense which constitutes trespass arises out of the laws of property, as the passing over or treading upon the property of another; yet it often assumes the additional meaning of transgress, which flows out of the laws of society in general which fix the boundaries of right and wrong; as, we trespass upon the time and patience of another.

TRICKING.— Tricking signifies the deceiving, or getting the better of any one; it is a species of dextrous cheating. One tricks by some sudden invention, and the means and the end are alike trifling. Cunning people are tricky, and sustain, as in cheating, a loss of character. A tricking man is entirely deprived of that business principle, trust, whence he will find nothing succeed to his wish.

TRIFLES.— Trifles, though apparently unimportant, have done wonders in the world's history. A little error of the eye, a misguidance of the hand a slip of the foot, a starting of a horse, a sudden mist, a great shower, or a word undesignedly cast forth in an army, has turned the stream of victory from one side to another, and thereby disposed of empires and whole nations. Trifles may justly be considered as making up the happiness or misery of human life.

TROUBLES.— Troubles relate to the pain which is the natural consequence of not fulfilling engagements, answering demands, etc. Probably the greatest troubles that can arise to disturb the peace of a man's mind, are those which are produced by pecuniary difficulties. The want of a thing, or that which is unsuitable, the perverseness of servants, or the ill behavior of children, are constant sources of troubles.

TRUSTFULNESS.— Trust signifies to depend upon as true; it is a permanent disposition of the mind, and rests on the authority of one or more individuals. We are inclined to believe those who have never deceived us, including those whom we do not know. We trust laws and principles, the lines of precedent, and the links of succession; nature, and even God himself, because we are obliged to. Children trust because they have no reasons for doubting. Trust is the underlying principle of every scheme in human life, and the temple of human happiness is founded upon it. There is no poverty-stricken wretch so poor as he who is poor in trust.

TRUTHFULNESS.— The truth of a story is admitted upon the veracity of the narrator. Without truth there is no reliance upon language, no confidence in friendship, no security in bonds or oaths—it being the bond of union and the corner-stone of all human happiness. It includes all other virtues, is older than sects or schools, and its triumphs are the most glorious the world has ever seen. Truth is the firmest and noblest ground upon which people can live, as it gives them the knowledge of what is just and lawful, and enables them to sustain a strict and stern investigation. It is the beginning of every good thing, and he who would be blest and happy, as well as trusted, should be from the first a partaker of it.

TWO SIDES. — People should consider that a story or a slander is a duality and not a unity—one side must utter, and the other listen. Not only is the tale-bearer, the flatterer, and the revealer of secrets, to be condemned, but he who has "itching ears," and "giveth heed to false lips" or "giveth ear to a naughty tongue," is equally censurable.

"It's a very good rule in all things of life,
When judging a friend or a brother,
Not to look at the question alone on one side,
But always to turn to the other.

"We are apt to be selfish in all our views,
In the jostling, headlong race,
And so, to be right, ere you censure a man,
Just 'put yourself in his place.'"

TYRANNICAL. — Tyrannical implies an unseemly exercise or affectation of power or authority. An imperious person is disposed to command without adequate authority, or to convey his commands in an offensive manner; he commands only that he may be obeyed. If one be domineering, he rules like a lord, or rather attempts to rule. He affects authority where it least exists, and has sunk so far below himself as to be fit for nothing but to be trampled upon. Overbearing is employed for persons in the general relations of society, whether superiors or equals. One having an imperious disposition coupled with some talent, will frequently be so overbearing in the assemblies of his equals as to awe the rest into silence, and carry every measure of his own without contradiction, favor, or affection.

UGLINESS. — I imagine it to be in all respects the opposite to those qualities which we have laid down for the constituents of beauty. But though ugliness be the opposite to beauty, it is not the opposite to proportion and fitness. For it is possible that a thing may be very ugly with any proportions, and with a perfect fitness to any uses. Ugliness I imagine to be consistent enough, likewise, with an idea of the sublime. But I would by no means insinuate that ugliness of itself is a sublime idea, unless united with such qualities as excite a strong terror. - Burke.

UMBRELLA. — It is not contrary to the requirements of etiquette to carry an umbrella at any time, though it is apparently useless. One should always be carried when going on a journey of any considerable distance, or for a short journey if there be only a slight indication of rain. It is well to be provided with two — one at your home and the other at your place of business.

When making calls, gentlemen leave their umbrellas and overshoes in the hall, but take their hats and cane with them, either holding them in their hands or placing them upon the floor very near the chair which they occupy.

UNCOUTHNESS. — It is a breach of etiquette to assume any ungraceful or uncouth positions, such as standing with the arms akimbo, sitting astride a chair, leaning back in the chair, standing with legs crossed or feet on the chairs, leaning forward in the chair with elbows on the knees, or smoking in the presence of ladies. All these acts stamp one as ill-bred and unpolished.

UNCHASTITY. — Impure or unchaste language should never pollute our lips. Since we insensibly imitate the manners, tastes, and language of those by whom we are surrounded, being unaware of the silent influences which are thus shaping our characters, we should avoid the associations of the unchaste, for they are in no sense good society. Likewise, obscene, immoral, and vulgar publications, which excite the imagination, inflame the passions, stimulate the curiosity, and corrupt the heart by unchaste suggestions, must be shunned.

UNDRESS. — Politeness requires that gentlemen shall not come to the table without their coats. Ladies may not appear in elaborate dress for breakfast, but should not be so negligent as to excite remarks at the impropriety of their appearance.

UNEASINESS. — It is rude to show uneasiness, to be fidgety and restless when in company. Quietness is a mark of good breeding.

UNFAITHFUL. — Unfaithfulness is a negative quality implying a deficiency, and marking the want of fidelity. A man is unfaithful to his employer who sees him injured by others without trying to prevent it. A woman is unfaithful to her husband when she does not discharge the duties of a wife to the best of her knowledge and abilities.

UNKINDNESS. —

"The hint malevolent, the look oblique,
The obvious satire, or implied dislike;
The sneer equivocal, the harsh reply,
And all the cruel language of the eye;
The artful injury, whose venom'd dart
Scarce wounds the hearing, it stabs the heart;
The guarded phrase, whose meaning kills, yet told,
The list'ner wonders how you thought it cold;
Small slights, neglect, unmixed perhaps with hate,
Make up in numbers what they want in weight:
These, and a thousand griefs minute as these,
Corrode our comfort, and destroy our ease."

UNIFORM TEMPER. — It is very impolite to be variable in temper; gay to-day, and sedate to-morrow. To be uniformly kind, courteous, and considerate, is necessary to preserve respect and friendship. Vacillating people are at all times very trying on their friends.

URBANITY. — Urbanity and suavity both relate to the refinement and sweetness of the disposition. As polite education tends to soften the mind and the manners, it leads to suavity; which, however, may sometimes arise from a natural temper. By the suavity of our manners we gain the love of those around us, and by the urbanity of our manners we render ourselves agreeable companions.

UNTRUTHFULNESS. — There is probably no other habit which so easily and insensibly grows upon the young as that of speaking thoughtlessly. By failing to see and hear attentively, they use inexact language, by censuring, disguising, and uttering opinions as facts. It is not uncommon for a lady to speak of a dreadful glove, a horrid ribbon, an awful-looking bonnet, a lovely fan, a perfectly splendid calico dress, or an exquisitely delicious cup of coffee, thus showing her lack of suitable language to express her thoughts. While this phase of untruthfulness may not be willful, and only the result of habit, her friends should be anxious for her reputation.

USAGE. — Usage is what one has long been used to do; it acquires force and sanction by dint of time. It is often so strong as to supply the place of written law. Custom is what one generally does; it acquires sanction by its frequency of being done, or the number doing it. Customs vary in every age, for instance, it was customary during Washington's time for men to have clean-shaven faces, but during Grant's time, the full-bearded face was the custom.

USURPER. — Usurp signifies to make use of as if it were one's own, and implies to take to one's self by violence, or in violation of right. It is properly applied to power, either public or private; as, a usurper exercises the functions of government without a legitimate sanction. It is not uncommon for minor usurpations to take place in the social and home circles.

VALOR. — Valor is a higher quality than either courage or bravery; it partakes of the grand characteristics of both, combining the fire of bravery with the determination and firmness of courage. It is practically the executive department of the mind. Valor challenges great respect, even from enemies, and when defeated on any occasion, seeks another in which more glory is to be acquired. The estimate and valor of a man consists in the heart and in the will; there his true honor lies. Valor is stability, not of arms and of legs, but of courage and the soul. A truly valiant man will dare to do almost any thing but doing any body an injury. He will do without witness what one would do before all the world.

VANITY.—Vanity signifies exceeding emptiness. It is always bad, and always emptiness or nothingness: it is the distortion of one's nature flowing from a vicious constitution or education. One is vain of his person, his dress, his walk, or any thing that is frivolous. Vanity shows itself only by its eagerness to catch the notice of others, and always makes its possessor ridiculous. False glory is the rock of vanity, and false modesty its masterpiece. Ladies of fashion are said to starve their happiness to feed their vanity, and their love to feed their pride. The more one has of vanity the less he has of understanding, and the more one has of affectation, the more nearly does his vanity reach its climax.

As a remedy for vanity, it is recommended that when you are disposed to be vain of your mental acquirements, look up to those who are more accomplished than yourself, that you may be fired with emulation; but when you feel dissatisfied with your circumstances, look down on those beneath you, that you may learn contentment.

VEIL.—Ladies sometimes appear on the street with veils over their faces, signifying that they do not wish to be recognized, and acquaintances may pass them as strangers, without either giving or taking offense. However, if on approaching, they remove the veil, it indicates that they wish to be seen and recognized.

VERACITY.—Veracity is the quality of truthfulness belonging to a person. The truth of his statements rests upon his veracity. The most important interests of society depend on the confidence which men repose in one another's veracity. If representations of facts, truths, or opinions are to be made, it is obviously fitting and right that they should be conformed to one's knowledge or belief. But for this, history would be worth no more than fiction, judicial proceedings would be a senseless mockery of justice, and the administration of law and equity, the merest haphazard; the common intercourse of life would be invaded by incessant doubt and suspicion, and its daily transactions, aimless and tentative.

VIOLENCE.—Violent or abrupt movements in society are a breach of etiquette. When persons of reputation and piety say or do violent things, it is not strange that others should follow them.

VICE.—A vice is a personal offense, the injury being inflicted upon ourselves; yet when made public, though it be such as seems to effect only ourselves (as drunkenness and the like), it then becomes, by the bad example it sets, of pernicious effects to society.

VIGILANCE.—Vigilance expresses a high degree of watchfulness. Upon ordinary occasions a sentinel is said to be watchful, but upon extraordinary occasions, vigilant. Few persons are as watchful as they ought to be. Though they be watchful in the proper sense of watching, they should be vigilant in detecting both moral and natural evils.

VINDICTIVE.—A vindictive person is both revengeful and resentful. He who is prone to revenge or the thing which serves the purposes of revenge or punishment, has a temper that should be closely watched.

VIRTUE.—Virtue does not consist in mere innocence, or abstaining from harm, but as well in the exercise of our faculties in doing good; it is the habitual sense of right, and the habitual courage to act up to that sense of right, combined with benevolent sympathies. The dignity of virtue is such, that it is said that were there but one virtuous man in the world, he would hold up his head with confidence and and honor; he would shame the world, and not the world him.

While virtue is one and indivisible in its principle and essence, in its external manifestations, it presents very different aspects, and under different forms assumes different names. The cardinal virtues are those on which the character hinges or turns, the possession of all of which would constitute a virtuous character, while the absence of any one of them would justly forfeit for a man the epithet virtuous. They are Prudence, Justice, Fortitude, and Order.

VISITING.—In order to maintain good feelings between the members of society, visiting is necessary. Visits of ceremony are not required among intimate friends. It is best not to pay visits unless by special invitation. If one's friend desires to extend hospitality to him, he will send an invitation which can be accepted with the prospect of mutual convenience and pleasure. Always exercise great care in paying visits of long duration, and never pay one on a general invitation. When traveling, and you stop in a city where you have friends, it is better to register at a hotel, and inform them of your arrival, leaving it optional with them to extend hospitality. Even with your relatives it is better to announce your coming.

No one not mentioned in a special invitation should go; but a wife may accompany her husband, and vice versa.

The main point in visiting is to give as little trouble as possible, to conform to the habits of your entertainers, and never be in the way.

A host should provide amusement for his guests, and give up his time as much as possible to them, accompanying them to any points of interest in the city or neighborhood.

The rule on which the host should act, is to make his visitors as much at home as possible; that on which a visitor should act, is to interfere as little as possible with the domestic routine of the house.

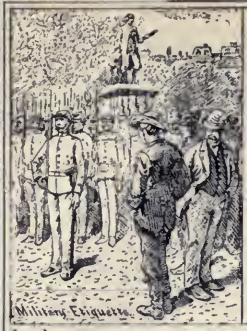
A lady when visiting may with propriety offer to assist her hostess in household duties or family sewing; but if she decline, it is in bad taste to insist.

No guest may make outside engagements, or visit, without consulting the host or hostess. Neither hostess nor guest may accept any invitations which do not include the other. A guest must always be at the disposal of the host or hostess, if a ride, drive, or walk is proposed, or otherwise to occupy the day.

It is the first duty of the guest, after returning home, to write to the host or hostess, expressing the pleasure derived from the visit, and mentioning each member of the family by name, desiring to be remembered to all. (See Calling, Strangers, Entertainment, Sociability, also Invitations-Index).

VOICE.—The sweetly modulated accents of a fine voice exert a wonderful power upon the ear. Good or bad impressions are made upon us, not only by what people say, but by the tones used in the conversation. Habits of thought are indicated to a great degree by habits of expression, as he who is habitually ill-natured will give expression to his thoughts in ill-natured tones. Good society demands that we make ourselves as agreeable as possible, and nothing serves to make a better first impression than a carefully trained voice. A gentle and low tone is a charm in a woman. A certain distinct, subdued tone is peculiar to persons only of the best breeding.

VULGARITY.—Vulgarity is supposed to belong to those who are ignorant and depraved in taste as well as in morals. Vulgar habits being easily contracted from a slight intercourse with vulgar people, it is well to be on one's guard when thrown among them. Let your conduct be simple, and avoid assuming an air of superiority over them.



WALKING.—Persons walking in company should always keep step together.

When two gentlemen accompany a lady in a walk, she should place herself between them, and not unduly favor either. She should not take an arm of each; neither should a gentleman walk with a lady on each arm, unless when coming from a place of amusement at night, or in passing through a crowd.

In walking with a lady, where it is necessary for you to proceed singly, always go before her. Always give a lady the safe side (usually the inner side) of the walk, whether you be at her right or left.

A gentleman should accommodate his walk to that of a lady, or an elderly or delicate person.

A gentleman in walking with a lady who wishes to enter a store, should open the door, permit her to pass in first, follow her, and close the door. He should always ring door bells, or rap at a door for her. (See Street and Sidewalk).

WATCH.—Whether at home or abroad, a frequent consultation of the watch or time-piece is impolite. If at home, it appears as if one were tired of the company and wished them to be gone; if abroad, as if the hours dragged heavily, and one were calculating how soon he would be released.

WATCHFULNESS.—Watchfulness is a natural virtue, and is recommended to us frequently by the Bible.

"In private, watch your thoughts; in your family, watch your temper; in society, watch your tongue."

WEATHER.—One should avoid commencing a conversation by alluding to the weather. Though the weather is a subject that concerns every body, and every body knows more or less about it, ever since the days of Noah it has been considered tedious to talk of it.

WELCOME.—When visiting or calling one should be careful not to stay so long as to wear out his welcome.

Whoever or whatever comes well, or in season, to us, and happening in accord with our wishes, should elicit from us a prompt expression of our cordiality. Leave no room for a sense of coldness.

WHISKERS.—The style of wearing the whiskers should be governed by the kind of face. Some people wear the full beard; others the long Cardigan whiskers; some mustache and whiskers, or mutton-chop whiskers, or the long flowing mustache and imperial of Victor Emmanuel, or the spiky mustache of the late Napoleon III. Whatever the style, the point is to keep it well brushed and trimmed, and to avoid any appearance of wildness and inattention. The full, flowing beard, of course, requires more attention in the way of cleanliness than any other. It should be thoroughly washed and brushed every day, as dust is sure to accumulate in it. Do not use oil as it causes the dust to adhere.

WHISPERING.—To whisper in company is exceedingly unbecoming in persons, since it is not unreasonable to suppose that some one present is the subject of their comments. Such conduct may well be considered offensive to every one.

WIFE.—The privilege and pleasure of rendering home happy and attractive, especially devolves on the wife. A young wife should be very careful about devoting her leisure time to any charitable purposes, or otherwise, without first consulting her husband; neither should she be induced to attend evening lectures or places of amusement unless he accompany her.

Never leave your husband to spend his evenings at home alone, nor give him cause to say that you are more agreeable abroad than at home. Nothing can be more senseless than the conduct of a young woman who seeks to be admired in general society for her politeness and engaging manners, or skill in music, when, at the same time, she makes no effort to render her home attractive.

Never trust any individual whatever with small annoyances, or misunderstandings, between your husband and yourself. Be on your guard, and reject every overture that may lead to undesirable intimacy. Never approve a mean action, never speak an unrefined word. The slightest duplicity destroys confidence. The least want of refinement in conversation, or in the selection of books, lowers a woman—ay, and forever.

WILD OATS.—Such suggestions as "boys must sow their wild oats," etc., indicate a total lack of reflection and observation. That boy or man never lived who was exempt from the punishments affixed to the violation of any of the moral precepts which operate on mankind in general. Such a delusion has been fatal to many a poor fellow, who discovered his error too late.

WINDOWS.—In the cars one has no right to keep a window open, if the current of air thus produced annoys or endangers the health of another.

A gentleman may bow to a lady seated at a window, if he is passing on the street; but he must not bow from a window to a lady passing on the street.

WINE.—To urge wine upon one after having declined it, is impolite and unkind.

If you do not partake of wine at the table, simply say to the waiter "Not any, thank you," and your glass will not be filled. Avoid making any discourteous remarks about it while at the table.

WISDOM.—"Happy is that man that findeth wisdom, and the man that getteth understanding. Length of days are in her right hand, and in her left riches and honor. Her ways are ways of pleasantness, and all her paths are peace."

"These six things doth the Lord hate; yea, seven are an abomination unto Him: a proud look, a lying tongue, and hands that shed innocent blood, a heart that deviseth wicked imaginations, feet that be swift in running to mischief, a false witness that speaketh lies, and he that soweth discord among brethren."

WIT.—Wit is mostly displayed in aptness of expression and illustration. When it enlightens the intellect, conveyed in jocular expression; when it infringes neither on religion, charity, justice, nor peace; when it contains good humor, sweetens conversation, and makes the endearments of society more captivating; when it exposes what is vile and base to contempt, adorns truth, and answers what is below refutation; then it is proper and fitting to employ it in social intercourse. However, it is a very dangerous instrument. Unless handled with extreme prudence, it is injurious alike to the one who uses it, and to the one who is made to feel its sting. Many will forgive a blow, but few will forget that they have been made the subjects of ridicule; hence, witty persons rarely have very warm friends.

WRONG.—One repents of injustice, repairs injuries, and redresses wrongs. Injury is harm or damage done to any one's person, reputation, or property, and may be accidental or intentional. Injustice is the violation of justice, or a breach of the rule of right. When we think worse of a person than we ought to think, we do him an injustice. Wrong partakes both of injury and injustice. It is the result of evil intentions, recklessness, or indifference.

WHEN merchants, manufacturers, students, and others, are in need of information relative to business terms and forms, they need not look in vain in the following pages to find something to meet their wants. It must be admitted by every one that business men should know something of the most general laws of business, as the law of partnership; how to make agreements; how to conduct sales; how to make notes; how to collect them; etc. All should likewise know so much of the ordinary law as protects and defines their common and universal rights. A knowledge of the principles or rules of business law would prevent the many important mistakes which are made every day, leading to much loss as well as difficulty. From the great variety of accurate forms given, any person may select the form nearest to his particular need, and easily make any alterations which his case requires.

ABANDONMENT. — This term is generally used in reference to the risks of marine insurance; the surrender of property to the insurers.

ABATEMENT. — A discount made for damage or overcharge, or for the payment of a debt before it is due.

ABSTRACT. — An Abstract of Title is a brief account of all the deeds, judgments, and instruments affecting one's title to real estate. The evidences of title are usually conveyances, wills, orders or decrees of courts, judgments, sales by officers appointed by law, and acts of the Legislature and of Congress.

ACCEPTANCE. — An Acceptance is a formal agreement by signature to pay a draft or bill according to its terms. If a drawee agrees to pay with some qualification or condition, it is called a qualified or conditional acceptance.

Acceptances are usually written across the face of a bill, in red ink. A drawee is entitled to a certain time, usually twenty-four hours, to decide whether or not he will accept.

If an acceptance be conditional, it should appear so in writing on its face. A holder is not bound to take a conditional or qualified acceptance.

The following form shows a conditional acceptance: "Accepted if in funds from consignment shipped us on 3d instant.

Chicago, Oct. 14/99. Alex. M. Moody."

If a bill has been accepted after it has been protested for non-acceptance, it is called an acceptance for honor.

ACCOMMODATION PAPER. — An Accommodation Note or Draft is one for which the maker receives no consideration, but which he makes for the purpose of lending his credit to the payee to enable him to raise money. The party for whom such accommodation was made, cannot recover from the maker; but if it is endorsed for value to a third person, although he may have notice that it is an accommodation note, and no consideration was given for it, that third person can nevertheless recover from the original maker. An accommodation note or draft is drawn in the ordinary negotiable form.

ACCORD AND SATISFACTION. — Offer and acceptance of one thing in place of another due.

ACCOUNT. — A statement of the debits and credits resulting from business transactions relating to it. An account may be kept with a person, any species of property or cause.

ILLUSTRATION.

Dr. A. G. WALTON. Cr.

Sold Him on Account.		Received from Him on Account.	
10 bbls. Sugar, ..	90.00	Cash, ...	150.00
10 ch. Tea, ...	100.00	"	50.00
5 bags Coffee, ..	150.00		

ACCOUNT CURRENT. — A detailed statement of the transactions between parties for a certain period, showing what is the condition of affairs at the current or present time.

ACCOUNT SALES. — An itemized statement of sales and expenses, sent by a commission merchant to his principal. It exhibits the quantities and prices of goods sold, the commissions and other charges, and the net proceeds.

ILLUSTRATION.

Account Sales of 75 Bales of Wool, received per Lake Erie & Western Railroad, and sold for Account of Messrs. Walton & Whisler, Atlanta, Ind.

1961					
Nov.	10	Three-quarter-blood Merino, Net 9238 lbs. @ 60c.,	30 days.	5542	80
Dec.	15	Half-blood Merino, Net 2638 lbs. @ 55c.,	"	1450	90
"	"	Unwashed Merino,			
1962		Net 160 lbs. @ 55c.,	"	88	00
Jan.	5	Common and half-blood, Net 985 lbs. @ 50c.,	"	492	50
				$7514	20
		—CHARGES.—			
		Freight and Drayage, $192.33			
		Commission, including Insurance, Storage, and Labor, 2 cents per pound on 13,101 lbs.,	262.02	454	35
		Net Proceeds due Dec. 12, 1961		$7119	85

E. E. GOOD & MANNING.

Chicago, Jan. 10, 1962.

ACKNOWLEDGE. — In commercial correspondence, the term by which the receipt of a letter, remittance, or order, is admitted; to certify by signature the genuineness of a deed or mortgage.

ACKNOWLEDGMENT. — A receipt or admission; a formal admission made before an officer, that the act described was voluntarily done. The officer's certificate of the admission is also called an acknowledgment.

ACKNOWLEDGMENT OF REMITTANCE AND ORDER.

Kokomo, Ind., Oct. 1, 1943.

MESSRS. WADE & CO.,

Chicago, Ill.

Gentlemen: — Your favor of 5th inst. covering draft on First National Bank, New York, for Five Hundred Sixty-three and 87/100 Dollars, is to hand and passed to your credit with thanks.

Your order for 25 bbls. Apples is entered, and the goods will be forward early in the week.

Awaiting a continuance of your favors, we are,

Respectfully yours,

MARSH, MEANS & CO.,

Desmond.

ACCOUNTS PAYABLE BOOK.—

No.	DATE.	NAME AND PURCHASES. ADDRESS.	TERMS.	AMT. INV.	J.	WHEN DUE. 1/5	10	15	20	25	DATE.	WHEN PAID. No. CH.	MEMO.	AMT. PD.
1	19— Dec. 28	Morton Bros., Chicago.	60 da. net.	6825	13					Feb 26	19— Feb. 25	139	In full.	6825	13
2	Jan. 3	Coe & Cox, St. Louis.	30 da. 2% 10 da.	1583	28				Feb 2		Jan. 10	936	In full less 2%	1551	61
3	" 14	Roads & Co., St. Paul.	60 da. or 30 da. net 10 da. 1%	2786	52			Mar 15			Jan. 25	M 15	Note 30 da. per. B.D. 1%	2758	65
4	Feb. 5	Hare & Bro., Detroit.	30 da.	1281	52		Mar 7								

The design of the Accounts Payable Book is to contain a record of all invoices of merchandise bought on time, the maturity of the same, and when and how they were settled. When an invoice of goods purchased on time is received, a record of it is made in this book. The invoices are numbered in the order in which they are recorded, and the date entered is that of the invoice.

ACTUARY.—One skilled in annuities; a clerk of registry; the active officer in a life-insurance company.

ACQUITTANCE.—A receipt in full of all demands or written discharge; a release from debt or obligation.

ADJUSTMENT.—This term has particular reference to the settlement of a loss under a marine policy upon the principle of average. This settlement is often of a most intricate nature, and requires the services of skilled professionals and experts. It is often used in reference to fire insurance.

ADMINISTRATOR.—One that is appointed by the court to settle an estate. It is only when a person dies without a will that an administrator is appointed. An administrator has jurisdiction only over the personal property of a deceased person. The heirs can take possession of the real estate without any authority from the court.

ADMIRALTY COURT.—This court has jurisdiction of cases arising on the sea or connected with vessels; as, cases of piracy, collision on the sea, claims for repairing a vessel, or contracts to carry freight or passengers. No State has any jurisdiction over the ocean.

ADULTERATION.—The debasing of an article or substance by spurious or less valuable admixtures.

AD VALOREM.—According to value. A custom house term, relating to the estimating of duties upon the value of imported goods.

ADVANCE.—Increase in value of merchandise; money paid before goods are delivered; moneys or acceptances from the commission merchant to the consignor before the goods are disposed of.

ADVENTURE.—A bill of goods shipped to be sold on account and risk of the shippers; any enterprise or hazard.

ADVENTURE IN CO.—Goods sent to be sold on joint account of the shipper and consignee.

ADVERTISEMENT.—A public notice or announcement in print, of articles for sale or enterprises of any kind.

ADVICE.—The announcement of goods shipped, or bills sent for acceptance; information communicated by letter.

AFFREIGHT.—To hire a ship or vessel for freight. The freight of a ship is called affreightment.

AFFIDAVIT.—A sworn declaration, taken before a competent official. It should be positive in the description of amounts, places, persons, etc.

GENERAL FORM.

STATE OF INDIANA, TIPTON CO., TOWN OF BOZ, ss.

James Daily, being duly sworn, deposes and says (or alleges and says): That—(Here set out in full and accurate language the matters to be alleged).

[SEAL]. James Daily.

Sworn (or affirmed) before me, this ninth day of May, A.D. 19—.

BENJAMIN SMITH,
Justice of the Peace.

AFLOAT.—A term signifying that merchandise has arrived in port, but not delivered from the vessel.

AGENCY.—An Agent is a person having power to act for another, who is called a principal. His authority is constituted in three ways: by deed under seal, by a writing without seal, or by mere words. Except where the agent has an interest in the subject-matter, or the authority is given for a valuable consideration, the principal may revoke the authority at pleasure, subject in some cases to a claim for damages.

The responsibility of the principal and the agent is as follows:

PRINCIPAL:

1. The principal is responsible for the acts of his agent.
2. If the act is not within the authority given, the principal is not responsible.
3. Where apparent authority is given, the principal is responsible.
4. The principal is responsible if he subsequently ratifies the act of his agent.

AGENT:

1. The agent is not responsible to third parties for acts he performs as agent.
2. An agent who exceeds his authority, is responsible to third parties.
3. An agent who conceals his principal, is responsible to third parties.
4. An agent who specially agrees to become responsible to third parties, is so.
5. An agent acting fraudulently or deceitfully, is responsible to third parties.

AGIO.—A term denoting the difference between the real and the nominal value of money; or between one kind of money and another; the rate of premium charged for accepting payment in one kind of money where the contract exacts another kind. Agiotage is the speculation on the rise and fall of public funds.

AGREEMENT.—An Agreement is a contract (which see) by which a certain person, or persons, agrees to perform certain duties within a specified time. The legal requirements of an agreement are the same as those given under Contract.

GENERAL FORM OF AGREEMENT.

This Agreement, made this second day of November, A.D. 19—, between John G. Dunn, of Denver, County of Arapahoe, and State of Colorado, of the first part, and William Crowe, of Leadville, County of Lake, and State aforesaid, of the second part,

Witnesseth, That the said John G. Dunn, for the consideration hereinafter mentioned, doth covenant and agree to and with the said William Crowe, that (here insert the agreement on the part of Dunn).

And the said William Crowe, in consideration of the covenant of the said party of the first part, doth hereby covenant and agree to and with the said John G. Dunn, that (here insert the agreement on the part of Crowe).

In Witness whereof, we have hereunto set our hands and seals, the year and day first above written.

Signed, sealed, and delivered in presence of
EDWARD O. SHARPE.
CHARLES MEANS.

JOHN G. DUNN. [Seal]
WILLIAM CROWE. [Seal]

ALIEN.—A person of foreign birth; foreign; foreigner.

ALIQUOT PART.—A smaller number by which a larger number may be equally divided; as, 10 is an aliquot part of 100; ¼ of ½; etc.

ALLIANCE.—A union for some common object; as the Farmers' Alliance.

ALLIGATION.—A formula which treats of compounding ingredients of different values; 1. So as to obtain the average value of the mixture; 2. So as to determine the ratio in which the quantities may be mixed to yield any given average.

ALLONGE.—A paper attached to a bill of exchange when there are too many endorsements to be contained on the bill itself.

ALLOTMENT TICKET.—An order for the periodical payment of a certain share of a seaman's wages to his family, during his absence at sea.

ALLOW.—To concede or discount an amount to be paid, as an abatement.

ALLOWANCE.—A portion of costs given by the court or statute; a deduction

from the gross weight of goods.

ALIMONY.—An allowance directed to be paid by a husband to a wife after separation from her husband, or during the pending of an action for divorce.

ALLOY.—A union of two or more metals, making a compound; in common usage, the alloy in a compound is understood to be the baser or less valuable metal; thus, gold is alloyed with silver or copper, silver with copper or brass, or nickel.

AMBASSADOR.—A public minister of the highest rank, sent abroad with power to represent the government of the country by whom he is sent.

AMOUNT.—The sum total, or aggregate; gross amount is the total without deduction; net amount, the total less deduction.

ANCESTOR.—One who has gone before in a family in a direct line; we may speak of the **ancestors** of a nation as well as those of any particular individual.

ANCHORAGE.—A roadstead or suitable holding ground for ships to anchor.

ANGLE.—A small measure of length in Bangalore, India, represented by three grains of rice, equal to about one inch.

ANKER.—A common liquid measure in various parts of Europe, varying in different countries from 9 to 10 gallons.

ANNUITY.—An Annuity originally signified an "annual income," but in a more general sense it is now applied to repeated payments of various kinds. In this sense, an Annuity is the annual, semi-annual, quarterly, monthly, weekly, or daily payment of a certain or varying sum, whether the payment be regular or intermittent, for a given term of years, for life, or forever.

ANSWER.—To reply to a letter or query; to discharge a debt or obligation; to be responsible for; a written defense made by a defendant, to the charges of a plaintiff in an action.

ANTAL.—A wine measure in Hungary, holding about 13½ gallons.

APPEAL.—The removal of an action from an inferior to a superior court for re-examination and review. Appeal Book, the papers upon which an appeal is to be heard.

APPEARANCE.—The formal proceeding of a party summoned into court. A failure of the defendant to appear, entitles the plaintiff to judgment. A failure of the plaintiff to appear, entitles the defendant to a dismissal of the proceeding.

APPELLANT.—One who makes an appeal from one court to a higher. Appellee, the one against whom an appeal is made.

APPLICATION.—The act of making a request; the formal preliminary process for obtaining insurance. Apply, to appropriate in a particular way; as, applying proceeds in the payment of a specified debt.

APPRAISE.—To set a price upon, or to value. **Appraisal**, the act of placing a value on goods. **Appraisement**, valuation of merchandise or other property. **Appraiser**, one who sets a value upon goods; a government official whose duty it is to examine and report the dutiable values of imported merchandise.

APPRENTICE.—The relation of an Apprentice is established by a written agreement, by which a male or a female minor, with the consent of his or her parents, agrees to serve as an apprentice, or servant, to some one in a certain trade or employment, until twenty-one years of age, or for a less period. In return for these services the master is to teach the minor the trade. The master may punish his apprentice, and is liable for his support. The officers having charge of the poor, may bind out pauper children in this way.

INDENTURE OF AN APPRENTICE.

This indenture of apprenticeship between John Bolton, father of Henry Bolton, on the one part, and Milton J. Mallery, of the other part, witnesseth: That the said Henry Bolton, aged 15 years on the 20th day of August, A.D. 19—, is hereby bound as an apprentice under the said Milton J. Mallery, from the date hereof until the 20th day of August, 19—, to learn the trade and art of a printer: and is faithfully to serve the said Milton J. Mallery, and correctly to conduct himself during the term of his apprenticeship.

And the said Milton J. Mallery hereby covenants that he will teach the said Henry Bolton the said trade and art, and will furnish him, during said apprenticeship, with board, lodging, washing, clothing, medicine, and other necessaries suitable for an apprentice in sickness and in health; and will send him to a suitable public school at least three months during each of the first three years of the said term; and at the expiration of the said apprenticeship will furnish him with two new suits of common wearing apparel, and one hundred dollars in money.

In testimony whereof, the parties hereto have set their hands and seals this twentieth day of August, A.D. 19—.

Executed in presence of A.P. Parker, Notary Public. John Bolton. [L.S.] Milton J. Mallery. [L.S.]

CONSENT OF THE MINOR.

I hereby consent to the foregoing indenture, and agree to conform to the terms thereof in all things on my part to be performed.

Dated this twentieth day of August, in the year 19—.

Henry Bolton.

APPROPRIATION.—A sum of money set apart for a certain purpose. **Appropriate**, to take to one's self with or without authority.

APPROVER.—One who confesses a crime, and accuses others of the same crime to save himself.—Also called giving State's Evidence.

APPURTENANCES.—Minor rights, or property, connected with real estate, which pass to the successive owners of the land. Thus a transfer of land carries with it all houses, trees, and everything standing or growing upon it, and all mines and quarries beneath the surface. The transfer of a house carries with it the doors, blinds, keys, etc., although they may be at the time temporarily detached, and not upon the property.

ARBITRATION.—The adjustment of a disputed point by a person or persons chosen by the parties in dispute. **Arbiter**, one chosen to decide a matter in dispute. **Arbitration of Exchange**, the deduction of a proportional or arbitrary rate of exchange between two places through an intermediate place, in order to ascertain the most advantageous method of drawing or remitting.

FORM OF SUBMISSION TO ARBITRATION.

Know all men, That a controversy exists between the undersigned, L.J. Bozell and Peter Miller, concerning the boundary and division lines of the following tract of land, situated in [here describe the land, and state the portion in controversy].

That said L.J. Bozell and Peter Miller do hereby submit said controversy to the arbitrament of Absalum Sumner and Joseph George.

That said award shall be made in writing under the hands of said arbitrators, ready to be delivered to said parties, or such of them as may desire the same, on or before the second day of February next.

That said award shall in all things by us and each of us be well and faithfully kept, observed and performed.

Witness our hands, etc.

In presence of A.B. Lambert, Notary Public. L.J. Bozell. Peter Miller.

FORM OF ARBITRATION BOND.

Know all men by these presents: That L.J. Bozell and Peter Miller have, this —— day of ——, A.D. 19—, submitted their matters in controversy, concerning the boundary and division lines of a certain tract of land [describe it], to Absalum Sumner and Joseph George, to arbitrate, award, order, judge and determine of and concerning the same.

That we, the undersigned, bind ourselves, in the sum of —— dollars, that said L.J. Bozell and Peter Miller shall submit to the decision and award of said arbitrators, provided said award shall be made in writing on or before the second day of February, A.D. 19—.

[Signed] William Bishop
Wm. H. Orr.

BUSINESS TERMS.

FORM OF ARBITRATORS' AWARD.

To all to whom these presents shall come, or may concern, know ye: That the matter in controversy existing between L.J. Bozell and Peter Miller, as by their submission in writing, bearing date the — day of ——, more fully appears, was submitted to Absalum Sumner and Joseph George, as arbitrators.

That said arbitrators, being sworn according to law, and having heard the proofs and allegations of the parties, and examined the matter in controversy by them submitted, do make this, their award, in writing:

(Write out in full the award).

In witness whereof, we have hereunto subscribed our names, this — day of ——, A.D. 19—.

Absalum Sumner.
Joseph George.

FORM OF NOTICE TO ARBITRATORS.

GENTLEMEN:—You have been chosen arbitrators on behalf of the undersigned, to arbitrate and award between them, in divers matters and things, set forth in their submission, which will be produced for your inspection when you meet at——, in——, on the—day of—, at—o'clock—.M., to hear the allegations and proofs.

Dated, etc.

L.J. Bozell.
Peter Miller.

ARCHIVES.—The place where public records are kept; the records themselves.

ARRAIGN.—To call a man to answer in court of law.

ARRAY.—The number of men summoned to attend court as jurymen.

ARREARS.—That which remains due; a sum of money remaining in the hands of a person from whom it is due.

ARTICLES.—A system of rules established by authority, as, articles of war; a written compact or agreement.

ARTICLES OF ASSOCIATION.

PREAMBLE.

For the purpose of organizing for the manufacture and sale of ——————, we, the undersigned, citizens of the State of ——, hereby enter into the following Articles of Association under the Laws of the State of ——, of 19—, 19—, and 19—, governing unincorporated Joint Stock Companies.

ARTICLE I. The name of this association shall be "——————."

ARTICLE II. The office and factory of the association shall be located in the City of ——, and State of ——.

ARTICLE III. The object of the association shall be to manufacture ——————, and sell —— to the retail and jobbing trades.

ARTICLE IV. The capital stock of this association shall be One Hundred and Fifty Thousand Dollars, to be divided into Fifteen Hundred Shares, of One Hundred Dollars each.

ARTICLE V. The number of directors in this association shall be seven, as provided by statute, and shall be elected annually.

ARTICLE VI. The officers of this association shall be seven directors, or trustees, a president, secretary and treasurer, all of which shall be elected on the second Tuesday after the first Monday in January of each year after the first election. Said election shall be by ballot, each stockholder being entitled to one vote for each share held by him, provided that all assessments due upon said stock shall have been paid.

ARTICLE VII. This association shall continue for a period of fifty years, unless sooner dissolved by a court for fraud or mismanagement.

ARTICLE VIII. The stockholders may, by a vote at any annual election, devolve upon the president, secretary, and treasurer, the sole management of their business.

ARTICLE IX. The death of a stockholder, or the assignment of his stock, shall not work a dissolution of the association, but shall continue as before.

ARTICLE X. That branch of law governing partnerships as regards the liability of stockholders, is recognized by this association, and nothing in these articles of association shall be construed as having organized as an incorporated Joint Stock Company.

In witness whereof, we have hereunto affixed our hands and seals this —day of ——————, A.D. 19—.

(ENDORSED ON BACK) Filed for record this —day of——, 19—, at 12 o'clock noon. A.B.COX, County Clerk. ——Co. State——.	HENRY MOORE,	[Seal]
	JOHN TANNER,	[Seal]
	FLETCHER ORR,	[Seal]
	JOHN LISTEN,	[Seal]
	M.T. SHEIL,	[Seal]
	S.T. HONALD,	[Seal]
	LEONARD BELL,	[Seal]

ASSAULT.—An attempt or offer, with force or violence, to do bodily hurt to another.

ASSETS.—A term commonly used in trade to designate the funds, property or effects, that is, the stock in trade, cash, and all the available property of a merchant, in contradistinction to his liabilities or obligations. **Equitable assets**, those assets which are only reached through a court of equity. **Legal assets**, the property of a deceased person, which the common law can reach for the purpose of satisfying his creditors. **Marshalling of Assets**, a technical phrase, meaning such an arrangement of the different funds under administration, as shall enable all persons having equities to receive their share, notwithstanding any intervening interests, liens, or claims.

ASSIGNMENT.—A transfer of title in any property; the making over to a person of all one's property and effects for the benefit of his creditors. As **signee**, a person to whom an assignment has been made. **Assignment of Dower**, the act by which a widow's share in her deceased husband's estate is fixed and secured to her.

GENERAL FORM OF ASSIGNMENT, WITH POWER OF ATTORNEY.

Know all men by these presents, That I,....., for value received, have sold, and by these presents do grant, assign, and convey unto..... .....(here insert a description of the thing or things assigned).

To have and to hold the same unto the said....., his executors, administrators, and assigns forever, to and for the use of the said....., hereby constituting and appointing him my true and lawful attorney irrevocable in my name, place, and stead, for the purpose aforesaid, to ask, demand, sue for, attach, levy, recover, and receive all such sum and sums of money which now are, or may hereafter become due, owing and payable for or on account of all or any of the accounts, dues, debts, and demands above assigned to him, giving and granting unto the said attorney, full power and authority to do and perform all and every act and thing whatsoever requisite and necessary, as fully, to all intents and purposes, as I might or could do, if personly present with full power of substitution and revocation, hereby ratifying and confirming all that the said attorney or his substitute shall lawfully do or cause to be done by virtue thereof.

In witness whereof, I have hereunto set my hand and seal the first day of....., one thousand nine hundred and .....

Executed and delivered in presence of .....[Seal]

ASSIGNMENT OF WAGES.

Know all men by these presents, That I,....., in consideration of one hundred dollars, the receipt of which I hereby acknowledge, do hereby assign, transfer and set over to....., all claims and demands which I now have, and all which, at any time between the date hereof and the....day of..... ....next, I may or shall have, against....., for all sums of money due or to become due to me for services as....

That I do hereby appoint and constitute said.....and his assigns my attorney, irrevocable, to do and perform all acts, matters and things in the premises, in like manner and to all intents and purposes as I could if personally present.

In witness whereof, etc.

BUSINESS FORMS.

ASSISTANCE, WRIT OF.—A judicial writ, directed to the sheriff, commanding him to put some person into possession of real property pursuant to a decree or order.

ASSOCIATION.—A joint stock company. (See Articles).

ASSORTMENT.—A variety of goods embracing all or most of the different kinds within the range of the avowed business; a quantity or variety of any kind of goods, which vary in form, color, quality, or price.

ASSUME.—To undertake or promise to perform any specified service.

ASSURANCE.—A writing or other evidence by which one's property is secured to him, or under which a certain sum is paid on the death of an individual.

ATTACHMENT.—A writ issued by a court, by which the sheriff or other officer is ordered to attach or levy upon certain property before judgment; also a process against a person. **Foreign Attachment**, a process by which the goods of absent debtors are seized, in order to compel an appearance, or in default, to pay the claim of the plaintiff.

ATTAINDER.—The taint, stain or corruption of blood, which the law attaches to a criminal who has been convicted of a capital crime.

ATTEST.—To bear witness to; to certify to; to affirm to be true, as, to attest a copy of record. **Attestation**, the execution of a will or other writing in the presence of witnesses.

ATTORNEY.—One who is appointed by another to act for him. **Substitution of Attorney**, the right of a party to change his attorney for another, upon obtaining an order of the court to do so. **Attorney of Record**, one in whose name the process or proceedings as attorney are taken.

POWER OF ATTORNEY—SHORT FORM.

Know all men by these presents: That I, the undersigned, of....., do hereby make, constitute and appoint....., of....., my true and lawful attorney, for me, and in my name and stead—(here insert the subject-matter of the power), to do and perform all the necessary acts in the execution and prosecution of the aforesaid business, and in as full and ample a manner as I might do if I were personally present.

Executed in presence of } E. H. Brown.
.....

LETTER OF SUBSTITUTION.

(To be endorsed on the power of attorney).

I hereby appoint....., as my substitute and in my stead to do and perform every act and thing which I might or could do by virtue of the within power of attorney.

J. M. Wood.

LETTER OF REVOCATION.

Know all men by these presents: That I,....., of....., in and by my letter of attorney, bearing date the .... day of....., did make, constitute, and appoint C. D. Keyes my attorney, as by said letter more fully appears.

That I, the said....., do by these presents annul, countermand, revoke and make void said letter of attorney and all authority and power thereby given said attorney, C. D. Keyes.

In witness, etc.

..... [L.S.]

AUCTION.—A sale of property, publicly, and to the highest bidder. **Auctioneer**, one licensed to sell goods by public outcry or vendue. An auctioneer is considered the agent of both the buyer and the seller.

AUDIT.—To examine and verify accounts. **Auditor**, one who examines and verifies accounts; an officer appointed by the government, or by any corporation, to examine claims upon the treasury, and to investigate the treasurer's accounts.

AUTHORITY.—The lawful giving of power to do something, by one person to his attorney or agent. **Authorities**, the citation of decisions of courts of justice, and opinions of legal writers, and statutes, which are referred to.

AVERAGE.—A fair sample; the adjustment of the proportion of loss sustained by insurers; the mean time for the payment of the whole of several sums due at different times; a voluntary proportion of loss of property, made by all persons concerned, for the safety of a ship and cargo. **General Average**, is where loss or damage is voluntarily and properly incurred in respect to the goods on board ship, or the ship itself, for the general safety of both ship and cargo. **Gross Average**, that average which falls on the ship, cargo, and freight.—Distinguished from **Particular Average**, which is that damage less than the whole, falling upon a particular property.

AVOIRDUPOIS.—Commercial standard of weight in the United States, England, and Canada.

AVULSION.—The sudden removal of land or soil from the land of one to the land of another, by the action of water or change in the course of a river. The land still belongs to the first owner.

AUXILIARY.—A term applied to various account books that are kept as aids to the principal books.

AWARD.—The judgment given by a person or persons in a case submitted for review and decision, by arbitration or otherwise. (See Arbitration).

AWAY-GOING CROPS.—Those sown during the last year of a tenancy, but not ripe until after its expiration, and which the tenant is entitled to. (See Emblements).

BAIL.—Those persons who, on release of a prisoner, become surety for his appearance at a stated time; delivery, in general. **Bail Bond**, the bond given by the sureties, with the prisoner as principal, for his appearance. **Common Bail**, bail in which the surety is merely nominal. **Special Bail**, a person who agrees or undertakes to be answerable for the appearance of another. **Bailable Action**, that certain action, wherein the prisoner is entitled to release upon giving bonds for his reappearance.

BAILEE.—A person to whom merchandise is consigned for a specific purpose. **Bailiff**, a person intrusted with the management of the goods of another, to whom he must account. **Bailment**, a delivery in the hands of another, of goods in trust, to be disposed of according to agreement or direction.

BALANCE.—Scales for weighing; the difference between the debit and the credit sides of an account; amount remaining due on settlement. **Balance Account**, an account used to contain the balances of resources and liabilities, comprising an epitomized statement of the condition of a business. **Balance of Trade**, the difference between the value of the exports and imports of a country.

BALANCE SHEET.—A statement in condensed form showing the condition and progress of business.

FORM OF BALANCE ACCOUNT.

Dr.						Balance Account.					Cr.
1900						1900					
Jan 31	To Mdse	70	15			Jan 31	By B. & Co.			32	10
	,, A. Bond	95	10				,, L. Bell			163	00
	,, Geo. Due	55	00				,, C. Mason			75	60
	,, C. S. Fox	73	60				,, C. B., net capital			197	00
	,, R. T. Yard	25	05								
	,, Cash	90	15				,, H. S., net capital			100	00
	,, Store	95	00								
	,, Notes	63	75								
		567	70							567	70

FORM OF BALANCE SHEET.

Balance Sheet, January 31, 19—.

		DR. Post.	DR. Cr.	Post.	Result.	Liabil.	Loss	Cr.
1	Proprietor	100	4461					
2	Cash	7765	5242	2523				
3	Merchandise	8912	5052	7250	9410	88		861 88
4	Expense	471					471	
4	A. Conly	1000	500			400		
	Alex. Kaiser	200	100		150			
	D. Craycraft	700	1175			475		
	O. F. Ames		4625			4625		
	Comer Bros.	600			600			
	Dord & Link	200	800			800		
	Bills Payable		250			250		
	Bills Receiv.	1482	573			750		
		24130	24130		10760	7300	471	861 88

SUMMARY.

TOTAL GAINS	861	88	PROOF.		
,, LOSSES	471				
NET GAIN	444	88	TOTAL RESOURC'S	7632	38
PROP. CREDIT	4000		,, LIABIL'S	3287	50
,, DEBIT	100				
,, NET CREDIT	3900		PROP. PRES. WOR.	4344	88
,, ,, GAIN	444	88			

BALLAST.—Any heavy material placed in the hold of a ship to steady it in the water.

BALLOONING.—To work up a stock far beyond its intrinsic worth by favorable stories or fictitious sales.

BALLOT.—A term used to designate any small bale or package; a Swedish term signifying ten reams of paper.

BALSA.—A kind of raft or float used on the coast of South America for landing goods through a heavy surf.

BANCO.—A commercial term used at Hamburg to distinguish bank money from the common currency; days of court sitting.

BANK.—An institution for the deposit and withdrawal of money. **Bankable**, funds which are received at the bank at par value. **Bank Accounts**, are kept under the names of the banks with which we deal. The bank becomes Dr. for our deposits in it, and Cr. for our checks drawn upon it. When our deposits are made, whether in cash or cash items, they are described on a deposit check made by us, giving the name and sum of each item, and the amount of the whole, and the amount is entered by a bank officer in our deposit book. When we want any money from the bank, we write and sign our application for it in a paper called a check, stating the sum asked for, and to whom we wish it paid. **Bank Balance**, amount on deposit at bank subject to draft. **Bank Book**, the book of a depositor in which each deposit is entered by the receiving teller, and which serves as the dealer's voucher. **Bank Bills** or **Notes**, promissory notes printed by the government and issued by national banks, payable on demand, and used as money. **Banker**, a dealer in money; one who is entrusted with the funds of another. **Bank Hours**, the time within which business is transacted at a bank, usually from 10 A.M. to 3 P.M. **Bankrupt**, a person who is unable to pay his debts; usually applicable to merchants or business men. **Bankrupt Act**, the Congressional act or law providing for the discharge of bankrupt debtors. **Bank Stock**, the paid up capital of a bank, usually divided into shares of a certain amount, for which certificates are given, and which may be transferred by assignment.

BANK NOTE.—A promissory note payable at a bank, formulated thus:

$500 $^{00}_{100}$ DENVER, COL., MAY 21, 19—.

Thirty days after date, I promise to pay..... .....H.B. Brown, cashier,.....or order, Five Hundred.....Dollars, value received, with interest. Payable at Colorado Nat'l Bank.

Endorsed on back by C.P. ENDICOTT, L.S. COMSTOCK. HOMER M. SPRAGUE.

BANKS.—Corporate institutions chartered by State or Federal authority for the convenient transaction of monetary operations. They are authorized to issue bank notes or bills for circulation to be used as money, to receive deposits, discount notes, buy and sell exchange, gold and silver coin, bullion, uncurrent money, to lend money on surety, etc. Their special privileges in these directions are granted upon the ground of the benefits which they confer, and in consideration of certain guaranties upon their part which render them safe and reliable.

BAR.—The whole body of lawyers is called the bar; a perpetual destruction of the right of plaintiff's action; place where prisoners are arraigned.

BARGAIN.—A contract or verbal agreement between two parties; often used in the sense of an advantageous purchase, as, "I bought it at a bargain."

BARQUE.—A three-masted vessel carrying no square sails on her mizzenmast.

BARRATRY.—The practice of stirring up and exciting quarrels and litigation, either in the courts or out; any species of fraud on the part of a shipmaster or mariners by which owners or insurers are injured.

BARREL.—A measure of capacity for liquids, grain, salt, etc. **Barrel Bulk**, a measure of capacity for freight equal to 5 cubic feet.

BARTER.—A traffic or trade, by exchanging one kind of goods for another.

BATTERY.—An unlawful physical beating, or other violence done the person.

BAWDY HOUSE.—A house of ill fame, kept for the unlawful resort and commerce of persons of both sexes.

BAZAAR.—A word signifying a place of exchange or general market place; a repository of fancy articles, especially of dress.

BEACON.—A signal or light intended as a guidance to mariners. It is usually erected at governmental expense.

BELLIGERENTS.—Nations actually engaged in war.—Sometimes applied to persons.

BEAR.—One who tries to depress the price of stocks, etc., and for this reason "goes short."

BEARER.—The person bearing, holding, or presenting for payment a note, draft, or check. Bills which are payable to bearer are negotiable without endorsement.

BENCH.—The judges as a whole, as distinguished from the lawyers; the seat where the judges sit. **Bench Warrant**, an order issued by a court for the immediate arrest of a person.

BEQUEATH.—To give personal property by will.

BETROTHMENT.—A mutual contract between a man and woman, by which they agree that they will marry each other at some future day.

BETTERMENTS.—Various improvements made to an estate rendering it better than mere repairs would be considered as doing.

BILL.—A statement in writing, as a list of items bought or sold, or of service rendered; a general term for negotiable paper; as, Bills Payable, Bills Receivable, etc. **Bill Book**, a book containing the particulars of all notes and drafts issued and received. **Bill Head**, a printed form used by merchants for their bills and statements of account. **Bill Obligatory**, a bond absolute for the payment of money. **Bill of Costs**, a statement of the items of the costs of an action. **Bill of Discovery**, a bill for the discovery of facts resting in the knowledge of the defendant, or of deeds, writings, or other things in his custody or power, but seeking no relief in consequence of the discovery. **Bill of Exceptions**, a written appeal or statement of objections to the decision of the court. **Bill of Exchange**, a general designation given to drafts, whether domestic or foreign. If foreign, it is usually drawn in sets of three, and sent by different steamers, or other modes of conveyance, so that one at least will be sure to reach its destination. The payment of any one of these cancels them all. **Bill of Indictment**, a written charge against one or more persons, of some specific crime, presented to a grand jury. **Bill of Lading**, a written receipt given by masters of vessels for goods shipped, whereby they agree to deliver them at their destination. Also applied to railway and other transportation companies. **Bill of Parcels**, a detailed account of goods sold. **Bill of Particulars**, a detailed statement of the plaintiff's claim for action, or of the defendant's set-off. **Bill of Purchase**, a statement of goods or wares bought at one time, embracing both the quantity and price of each article and the amount of the whole. **Bill of Review**, one which is brought to have a decree of the court reviewed, altered, or reversed. **Bill of Rights**, a list of rights; a paper containing a declaration of rights of individuals, or the declaration itself. **Bill of Sale**, a written contract given by the seller to the buyer, transferring the ownership of personal property. **Bill of Samples**, a list of samples, including prices, of the various articles dealt in by wholesale dealers, and sent out to retailers. **Bills Payable**, our notes and drafts payable to other parties. **Bills Receivable**, other people's notes or drafts in our possession, made payable to us.

BILL, UNRECEIPTED.

ST. PAUL, MAY 10, 19—.

MR. C.B. SHANKS,

Bought of L.S. LITTLE.

12 yds. Mous. de laine,	@	.20	2	40
1 doz. Linen Hdkfs.,			3	00
17 yds. Flannel,	"	.45	7	65
25 " Muslin,	"	.23	5	75
12 lbs. Brown Sugar,	"	.14	1	68
5 " Green Tea,	"	1.20	6	00
10 " Java Coffee,	"	.40	4	00
			$30	48

BILLS, CONTINUED.—

BILL, RECEIPTED BY FIRM.

SACRAMENTO, MAY 7, 19—.

MR. A.R. BENTON,
To H. GREEN & Co., Dr.

To 7 yds. Broadcloth,	@	3.25	
" 20 " Fr. Chintz,	"	.40	
" 10 " Gingham,	"	.35	
" 12 " Drilling,	"	.18	
" 48 " Muslin,	"	.22	

Received payment,
H. GREEN & Co.

BILL, RECEIPTED BY CLERK.

[SHIPPED AT BUYER'S RISK.] NEW YORK, OCT. 1, 19—.

MESSRS. H. CUE & Co.,

TERMS, NOTE IN 60 DAYS. To O.S. GULL & Co., Dr.

820			
25 boxes Cheese, 82 738	@	.12	$88 56
10 bags Flaxseed,			
1206-11=1195 lbs. 21½ bus.,	"	3.00	64 02
2 bbls. Eggs,			
141-6=135 doz.,	"	.25	33 75
Rec'd payment,			$186 33

STAMP O.S. GULL & Co.,
per L.C. MORE.

CHICAGO, Ill., MO., 6, 19—.

MR. W.S. LOWDER,
O.B. 55, PAGE 10. Bought of A.C. KRING & Co.
TERMS, 4 months.

Packages	No.			
365	20	2 doz. Men's Blk. Cas. Hats, @ $24.00		$480 00
1216		36 pts. Women's Balmorals, "	2.10	75 60
1301		35 " Child's Kid Books,	.60	21 00

Received payment,
A.C. KRING & Co.
STAMP per A.H. PENCE.

BILL PAID BY NOTE.

PLEASE EXAMINE PACKAGES CAREFULLY FOR MISSING ARTICLES.

INDIANAPOLIS, JUNE 8, 19—.

MESSRS. C.P. BROWN & Co.,
O.B. 6, PAGE 17. Bought of HANNA & JENNER.

7	Doz. Edg'd Muffins, 1.00, 1.20, 1.23,		8 15
2	" Mocco Pitchers, 4.50, 7.00,		11 50
6	" Table Tumblers, @ 1.25,		7 50
20	Sets W. G-ran. Teas, @ 1.10,		22 00
			$49 15

STAMP Rec'd payment by Note at 4 mos.
HANNA & JENNER.

BILLS FOR SERVICES, ETC.

CLEVELAND, JULY 3, 19—.

MR. JAMES MURRAY,
To JOHN NELSON, Dr.

19— JAN.	7	For Professional Services in Family,	$10 00
FEB.	14	" 4 visits to son, John Murray,	5 00
"	19	" 3 " " "	3 00
			$18 00

LOUISVILLE, MARCH 1, 19—.

MR. GEORGE LEWIS,
To T.H. MONROE, Dr.

19— FEB.	10	For Repairing House, as per Contract,	$15	75
"	"	800 feet Pine Boards, @ $8	6	40
		For Lock and Key for door,	2	25
			$24	40

Received payment,
T.H. MONROE.

NEW ORLEANS, MAY 4, 19—.

MR. EDWARD COAN,
To HENRY G. SMITH, Dr.

	For Instruction of son, Harry Coan, in English Branches, 3 mos., $15.00		
	in French, " 20.00	$25	00
	" Instruction of daughter Ella Coan, in English Branches, 3 mos., $15.00		
	in Music, " 15.00		
	" Use of Piano 10.00	40	00
	" Books furnished during the Term,	3	50
		$78	50

Received payment,
HENRY G. SMITH,
per S.T. MARSH.

ITEMS OF AN ACCOUNT.

LITTLE ROCK, NOV. 23, 19—.

MR. S.B. KEARNEY,
To M.P. WOLSEY, Dr.

19— APR.	10	To 5 bbls. Xenia Flour, @	$15.00	$75 00
MAY	13	" 10 lbs. Pearl Starch, "	.18	1 80
"	19	" 2 bbls. Prime Pork, "	17.50	35 00
				$111 80
		CR.		
APR.	10	By 17 yds. E. Broadcloth, @ $3.00,	$51.00	
MAY	17	" 25 " F. Chintz, " .40,	10.00	61 00
		Balance due,		$50 80

Settled by due-bill,
M.P. WOLSEY.

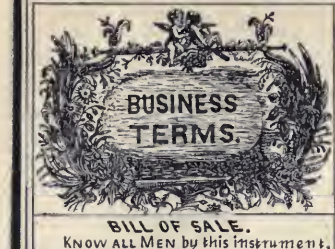
BILL BOOK.

BILLS RECEIVABLE.

No.	WHEN GIVEN	DRAWER OR DRAWEE OR IN FAVOR.	IN WHOSE ENDORSED.	FOR WHAT RECD.	WHERE PAYABLE.	TIME.	WHEN DUE.	AMT.	WHEN AND HOW DISPOSED OF.
1	19— OCT. 19	C. Burr.	R.G. Proprietor.	Cor. & Bro.	On acct.	Our note.	6 mos.	June 19	100	June 19	Paid.
2	" 27										
1	19— SEP. 10	L.S. Mells.	D.A. Shaver.								
2	" 17			G.S. Love.	Proprietor.	On acct.					
3	OCT. 7	O.L. Rude.									

BILLS PAYABLE.

No.	WHEN GIVEN	DRAWER OR DRAWEE OR IN FAVOR.	IN WHOSE ENDORSER.	FOR WHAT RECD.	WHERE PAYABLE.	TIME.	WHEN DUE.	AMT.	WHEN AND HOW DISPOSED OF.
1	19— OCT. 19	C. Burr.	R.G. Proprietor.	Cor. & Bro.	On acct.	Our note.	6 mos.	June 19	100	June 19	Paid.
2	NOV. 10										
	" "										
	" "	A. Colton									
	" "	G.S. Haley									
	" "										
	" "										
	" "



BILL OF SALE.

KNOW ALL MEN by this instrument, that I, Howard Carson, of Lexington, Ky., of the first part, for and in consideration of Eight Hundred and Fifty Dollars, to me paid by Edwin Arnold, of the same place, of the second part, the receipt whereof is hereby acknowledged, have sold, and by this instrument do convey unto said Arnold, party of the second part, his executors, administrators, and assigns, my undivided half of fifty acres of grass, now growing on the farm of Munford Whisler, near the town above mentioned; one pair of mules, ten swine, and two cows, belonging to me, and in my possession at the farm aforesaid: to have and to hold the same unto the party of the second part, his executors and assigns, forever. And I do, for myself and legal representatives, agree with the said party of the second part, and his legal representatives, to warrant and defend the sale of the aforementioned property and chattels unto the said party of the second part, and his legal representatives, against all and every person whatsoever.

In witness whereof, I have hereunto affixed my hand, this..... day of....., one thousand nine hundred and.....

Howard Carson.

SHORT FORM.

I.....of....., in consideration of.....dollars paid by.....of....., hereby sell and convey to said .....the following personal property (here insert schedule of articles), warranted against adverse claims.

Witness my hand this.....day of....., A.D. 19.....

Executed and delivered in presence of..... } (Signature). (Seal).

BILL OF SAMPLES.

COLUMBUS, FEB. 7, 19.....

MORSE & CO.,

Bought of MUNSON BROS.,

Dealers in Dry Goods.

ARTICLES.		AMT.		TOTAL.	
In doz. each. Samples.					
876		8	00		
214		7	50		
318		5	50		
674		7	00		
416		4	50		
520		6	50		
	12)	39	00	3	25

Samples less than dozens are sent out either ⅛, ⅙ or ¼ doz. each. Bills are rendered as above, and ½ or 1 is taken as the case may be.

BILL-STATEMENT.

JACKSONVILLE, FLA., FEB. 1, 19....

MR. C. B. BEECHUM,

To ELLSWORTH BROS. & CO., Dr.

Plumbers and Gas Fitters.

Jan.	2	For 14 hours on Water Pipe,	40¢	5	60		
		" 14 " " helper,	25¢	3	50	9	10
	7	Repairing Gas Meter,				2	50
	17	28 ft. 1-in. Galv. Pipe,	8¢	2	24		
		2 1-in. T's,	10¢		20		
		Cutting Pipe,			40	2	84
						14	44

BINDING OVER.—To oblige one by act of court to give bonds to appear and answer, or to keep the peace. **Binding out,** a contract of apprenticeship signed by the guardian or parent as well as the minor.

BLACKMAIL.—An illegal extortion of money by threats of exposure.

BLOCKADE.—An actual shutting up of a port or place by the occupation of an enemy, preventing communication therewith.

BOARD OF ALDERMEN,—A city board, called the common council, with authority to make laws for the citizens. Aldermen rank next below the mayor, and sometimes act as justices. **Board of Supervisors,** a county board, to whom the fiscal affairs of the county are intrusted. **Board of Trade,** an association of business men organized and maintained for mutual benefit, and for the regulation and advancement of commercial interests; also known as Chamber of Commerce, Merchants' Exchange, etc.

BOND.—A written obligation under seal binding the party who executes it to perform certain expressed acts, usually to pay a certain sum of money at a certain time. The penalties for non-performance in a bond are usually placed at double the sum mentioned, for the purpose of covering cost of collecting, interest, etc. **Bondage,** held by legal obligation. **Bonded Goods,** those which are stored in a bonded warehouse, or in bonded cars, the owner having given bonds securing the payment of import duties or of internal revenues, upon their removal, or their arrival at some inland city of entry, and before a specified time. **Bonded Warehouse,** a warehouse in which imported merchandise is stored until the importer makes entry for withdrawal or consumption, and pays duties, or until he withdraws for re-exportation to a foreign country without paying duties. These warehouses are owned by private individuals, who engage, under sufficient guaranty, to perform their duties in strict accordance with the warehousing laws, and who must first be designated and approved by the Secretary of the Treasury. **Bondsman,** one who is bound, or gives security for the faithful performance of any contract.

GENERAL FORM OF BOND.

Know all men by these presents, that I....., of....., in the County of....., am held and firmly bound to....., of....., in the County of....., in the sum of.....dollars (this amount should be double the sum named in the condition, to cover costs and contingencies) to be paid to the said....., to the payment whereof I bind myself and my heirs firmly by these presents, sealed with my seal.

Dated the..... day of....., A.D. 19.....

The condition of this obligation is such that if I, the said.....shall pay to said.....the sum of.....dollars, and interest, on or before the.....day of....., 19....., then this obligation shall be void.

Executed and delivered in presence of..... } .....[L.S.]

BOND WITH SURETIES.

Know all men by these presents, that we,....., as principal, and ..... and....., as sureties, all of....., in the County of....., State of....., are holden and stand firmly bound unto.....of said....., in the sum of....dollars, to be paid to the said....., to the payment whereof we jointly and severally bind ourselves and our respective heirs, firmly by these presents sealed with our seals.

Dated at....., this..... day of ....., A.D. 19.....

The condition of this, etc. (as above).

Executed and delivered in presence of..... } .....[L.S.] .....[L.S.] .....[L.S.]

BONUS.—A sum of money paid as a premium for benefits received, or for a loan.

BOOK DEBT.—An entry or charge on a ledger; called also an open account in contradistinction to a written promise or note. **Bookkeeper,** one who keeps the accounts; an accountant. **Bookkeeping,** a systematic record of business transactions, showing the kinds and amount of property and debts at the beginning, the debits and credits, and the gains and losses arising from the business transacted, and the net result of the business as a whole. **Book Trade,** the business of printing, publishing, and selling books.

BOSCAGE.—Food for cattle derived from wood, bushes, and trees.

BORROW.—To receive for a time an article or a substance which is to be returned either in itself or its equivalent.

BOTTOMRY.—A contract in the nature of a mortgage, called a bottomry bond, by which a ship is hypothecated to secure a loan for the use of the ship during a voyage. The lender loses his money in case the ship is lost.

BOUGHT.—Purchased; the past tense of buy. **Bought and Sold Notes,** memorandums of a sale by a broker, delivered to each party to the contract.

BOUNDARY.—The line that separates two estates. A natural boundary is one placed by nature, as a river, etc. An artificial boundary is one established by man.

BOUNTY.—An additional payment given to encourage certain industries, or enterprises; or given to persons to induce them to enlist in the army.

BRAND.—A mark made with a hot iron upon a cask or case; a trade mark either written, engraved or printed, consisting of a simple device, picture, combination, or name. **Branding,** a punishment inflicted by burning an offender with a hot iron; a mark of infamy.

BREACH.—Violation of a bond or contract. **Breach of Promise,** the breaking or violation of a man's word, especially when applied to a promise to marry. **Breach of Trust,** the misappropriation of anything intrusted to any one in confidence; the violation of duty by a trustee.

BREADSTUFFS.— A term applied to the various kinds of grain, flour, meal, etc.

BREAKAGE.—Allowance for things broken; allowance made by the shipper or seller upon certain descriptions of fragile goods.

BRIBE.—A gift intended to corrupt; a gift or reward, by any promise or agreement, to any person in a judicial position, in order to influence his action; the taking or giving of a reward for appointing another to a public position.

BROKER.—An agent who effects sales or purchases, or who makes loans and contracts for another; a dealer in stocks. A broker does not usually have possession of the property which he sells or buys as agent. **Brokerage,** a single commission paid for simply securing or effecting a sale or purchase of merchandise, stocks, gold, land, or other property, for exchanging money, negotiating any bargain between a seller or buyer, or transacting any similar business for another.

BROTHEL.—A common habitation for prostitutes; a lewd place.—They may be indicted as common nuisances.

BULL.—A stock-exchange term applied to a person who, believing that a certain stock will rise in the market, makes his contracts upon that faith; a brief or mandate issued by the Pope of Rome, to which is attached a seal of lead or gold.

BULLION.—Money having no stamp; a commercial name for uncoined gold or silver in the bulk.

BURDEN OF PROOF.—In a case at law, the duty of proving the facts, and generally lies upon him who asserts the affirmative.

BURGLARY.— The act of breaking into and entering the dwelling or business room of another, with the intent to commit some felony therein.

BUSHEL.—A standard measure of capacity used mostly to measure grain and other dry products of various kinds. It is a cylindrical vessel 18½ inches in diameter and 8 inches deep inside, containing 2150.42 cubic inches.

BUTTS.— The short pieces or ends on arable lands left in plowing. **Butts and Bounds,** the angles or points where the lines bounding an estate change their direction.

BUSINESS.—Exchange of commodities and of commercial values; calling, trade, profession, or any regular occupation.

BUSINESS MAXIMS AND LAWS—50.—Accuracy....Keep accurate accounts, and know the exact condition of your affairs.

Advantages.... There is more in the use of advantages than in the measure of them.

Agents...Agents are responsible to their principals for errors.

Appearances...Trust no man's appearances; they are often deceptive, and assumed for the purpose of obtaining credit. It is the rogue who is generally dressed well; the rich are generally plain men.

Business...Attend to your own business and not your neighbor's.

Business Hours...Business men, in business hours, attend only to business matters; social calls are best adapted to the social circle. Make your business known in few words, without loss of time.

Choice...Never refuse a choice when you can get it.

Confidence...Confide in few; treat all with respect; wrong no man.

Consideration...An agreement without consideration is void.

Credit...To preserve long friendship, keep a short credit; the way to get credit is to be punctual; the way to preserve it is not to use it too much. Be well satisfied before you give a credit that those to whom you give it are men to be trusted.

Debt...Goods in store are better than bad debts; an outlawed debt is revived should the debtor make a partial payment.

Demand...If no time of payment is specified in a note it is payable on demand.

Designs...Keep your designs and business from the views of others, yet beware did to all.

Economy...Be economical; a gain usually requires an expense; what is saved is clear.

Fraud...It is a fraud to conceal a fraud; a note obtained by fraud, or from a person intoxicated, cannot be collected.

Ignorance...Ignorance of law excuses no one.

Indorsement...The indorser of a note is exempt from liability, if not served with notice of its dishonor within twenty-four hours of its non-payment.

Impossibilities... The law compels no one to do impossibilities.

Interest...Notes bear interest only when so worded; if they are interest-bearing notes, they draw interest after maturity until paid.

Intoxication...An intoxicated person's signature to a negotiable paper is ineffective—it cannot be enforced against him.

Investments...Of two investments, choose that which will best promote your business.

Known...Become known,—and favorably known.

Lost or Stolen...If a note be lost or stolen, it does not release the maker; he must pay it.

Lunatic...A contract with a lunatic is void.

Mean Act...A mean act will soon recoil, and a man of honor will be esteemed.

Memorandum...Keep a memorandum book in your pocket, and note every particular relative to appointments, addresses, and petty cash matters.

Minor...A contract made with a minor is invalid; a note given by a minor is void, unless he ratifies it after becoming of age.

No...Never be afraid to say no, and always prompt to acknowledge and rectify any wrong.

Perfection...Endeavor to be perfect in the calling in which you are engaged.

Place...Have a place for everything, and everything in its place.

Partners...The acts of one partner bind all the others; each individual in a partnership is responsible for the whole amount of the debts of the firm.

Principals...Principals are responsible for the acts of their agents.

Reality...Reality makes no allowances for wishes or bad plans.

Receipt...A receipt for money paid is not legally conclusive.

Security...Be cautious how you become security for any person.

Signatures...Signatures made with a lead pencil are good in law.

Stranger...Let your dealings with a stranger be most carefully considered, and tried friendship duly appreciated.

Sunday...Contracts made on Sunday can not be enforced; contracts for advertising in a Sunday newspaper are invalid; a note drawn on Sunday is void.

Tomorrow...Leave nothing for to-morrow that should be done to-day.

Tricks of Trade...Leave "tricks of trade" to those whose education was never completed.

Value Received...It is not legally necessary to say on a note "for value received."

Without Recourse...An endorser can avoid liability by writing "without recourse" beneath his signature.

BUY.— To purchase or bargain for. **Buying Long,** buying in expectation of a rise in the market price.

BY ESTIMATION.—A phrase used in conveyances; as, the property is described as containing so many acres by estimation.

BY-LAWS.—Local or subordinate laws and regulations made by societies or corporations for the government of its members.—They must be made in harmony with the laws of the United States, and of their own State; otherwise they are void.

CABINET.— The advisory council of the chief executive of the United States or other governments, when assembled to concert measures for the administration of its affairs.

CALENDAR.—A list of causes pending trial in court. It contains the names of the parties, and of the attorneys who act for them.

CALCULATE.—To reckon, or adjust by comparison; to ascertain or determine by mathematical processes, usually by rules of arithmetic.

CALL.—Demand for the payment of an instrument due; a privilege given to another to "call" for delivery at a time and price fixed. **Call and Put,** a stock-broker's term relating specially to the practice of betting upon the future value of stocks. **Calling to the Bar,** admitting a person to practice at the bar.

CANCEL.—To erase or annul. **Cancellation,** the act of destroying a writing by drawing lines across it in the shape of a cross. Some instruments can be canceled by mere revocation.

CANVASS.—The act of examining the returns of votes for a public officer.

CAPACITY.—A compliance with the requisites for the performance of civil acts; the ability to receive or act, to sue and be sued; extent, room, or qualification.

CAPITAL.—Money or other property invested in business. **Capital Crime**, one for which the penalty of death is inflicted. **Capital Stock**, money or other property raised by the members of an association or corporation, and divided into shares. **Capitation**, a tax yearly laid upon each person; a poll-tax. **Captain**, a master of a vessel; an officer in the police force; the commander of a military company. **Captation**, the act of one who by insidious attentions, show of a friendly feeling, or other means, gains control over the will of another.

CARGO.—The goods or merchandise carried in a vessel or ship and constituting its load.

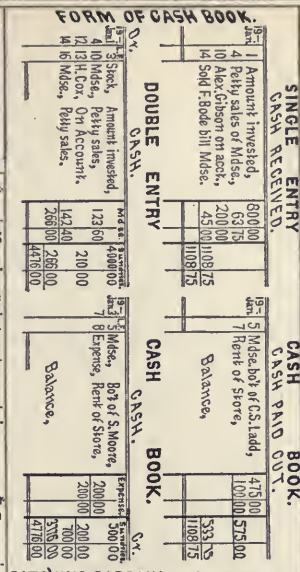
CARNALLY KNEW.—A technical phrase used in an indictment charging the defendant with the crime of rape.

CASE.—A suit or action at law or in equity; also an appeal book. **Case Stated**, a written statement of facts agreed upon, and submitted to the court for a decision upon the legal points involved, in order to avoid the formalities of a trial.

CASH.—That which is used as money, such as bank bills, coin, bonds, checks, and any paper easily converted into money. **Cash Account**, the title of one's account with money, and with what are known as Cash items; as, bank checks, sight drafts, etc., which are payable in money when called for. This title does not include notes and drafts that become due and payable at some future day, but simply Cash and Cash items in hand. **Cash Balance**, the balance due in Cash at any required date, including both debits and credits, and the interest arising on them severally, to the time when the balance is required. **Cash Book**, a book containing a record of all Cash received, whether from sales, from notes falling due, for services rendered, or for any other consideration; and of all sums paid for whatever purpose. **Cash Sales**, the sales made for ready money in contradistinction to sales on which credit is given.

FORM OF CASH ACCOUNT.

Dr.		CASH.					Cr.
RECEIVED.					PAID OUT.		
19—				19—			
Feb	7	For 10 bbls. Flour,	60 00	Feb	11	For Rent of Store,	90 00
,,	10	,, 8 ,, Pork,	80 00	,,	4	,, 70 bbls. Salt,	50 00
,,	19	,, C. Dor's Note,	75 00			Balance	215 00
			215 00				215 00
Mar.	1	Balance,	75 00				



CATCHING BARGAIN.—An agreement made with an heir expectant for the purchase of his expectancy at an inadequate price.

CAVEAT.—A warning of caution; a notice filed in the patent office, by one proposing to take out a patent, used as a bar against any other person obtaining a patent for the same invention.

CENSUS.—An official numbering of the people.—Made in the United States once each decade, beginning with 1790.

CENTER OF POPULATION.—If a country were a plane without weight, and so poised that it would stand exactly horizontal when supporting the people of that country, the center of gravity thus formed would be the center of population. In the United States the center of population was 22 miles west of Baltimore, near the 39th parallel North Latitude, in 1790. One hundred years later, 1890, it had moved westward, near the same parallel, to a point 70 miles west of Cincinnati; having traveled westward at an average rate of 5.1 miles per year, or 51 miles each decade.

CELEBRATIONS.—An occasional celebration will introduce a pleasing variety in the routine of life. These comprise picnics, excursions, dinners, reunions, festivals, etc., and are usually given by some society. Whatever be the nature of the celebration, there should be appointed a part or all of the following committees:

1. An executive committee, usually of three, to have general supervision of the whole affair.

2. A finance committee, who will solicit the necessary funds.

3. A committee on grounds, whose duty will be the selection of a suitable place for holding the celebration, furnishing speakers' stand, seats for the people, etc.

4. A committee on oratory, who will provide speakers, and, if for the Fourth of July, a reader of the Declaration of Independence, etc.

5. A committee on music, whose duty will be to provide a band, singing by a glee club, etc.

6. A committee on procession, who will induce the various societies, and a representation from the different trades, to appear in street procession, along with a representation of the different States of the Union.

7. A committee on fireworks, who will attend to the arrangements for such exhibition in the evening.

8. A committee on military display, who will organize any military exhibition that may be thought advisable, take charge of firing guns, etc.

9. A committee on amusements, to have special charge of, and organize such street display of burlesque, etc., as will entertain and amuse the people.

CERTIFICATE OF DEPOSIT.—Certificates of Deposit are used when money is temporarily deposited, and no regular bank account is kept. They may be used for making remittances by having them made payable to another person's order.

STAMP $1000. No. 1796.

CHICAGO NATIONAL BANK.

Chicago, Ill., Feb. 21, 19....

.....C. H. Morton.....has deposited in this Bank.....One Thousand.....Dollars to the credit of.....himself.....payable on return of this Certificate properly endorsed.

E. H. Shirk, Cashier.

CERTIFIED CHECK.—The certifying of a check means that the person drawing the check has funds to his credit to the amount of the check, and the bank guarantees its payment. To have the check certified, present it either to the paying teller or the cashier of the bank on which it is drawn. The bank officer writes across the face "Certified," with the date, and signs. Another form is "Good when properly endorsed." No one should accept an uncertified check from a stranger.

CHAFFERY.—The practice of buying and selling; beating down the price of goods.

CHAMBER OF COMMERCE.—Same as Board of Trade. **Chambers**, the private room of a judge.—Any hearing before a judge which does not take place while sitting in court, or during a term of court, is said to be at chambers.

CHANCELLOR.—A judicial officer appointed to preside over a court of chancery, or court of high equity.

CHANCE-MEDLEY.—The accidental killing of a man in self-defense.

CHARGE.—The explanation by the court to the jury of those principles which they are to consider and apply in giving their verdict in the trial of an action; the instructions given by a judge to the grand jury.

CHARITABLE USES.—The gifts or grants of property made for the benefit of the public, or for charitable purposes.

CHARTER.—A paper from the government defining the rights and privileges of a corporation; an evidence of things done between man and man. **Charter-party**, a contract by which the owner of a vessel lets the whole, or any part of it, to another for a particular voyage, in consideration of the payment of freight.

CHATTELS.—Any kind of property except real estate; as, merchandise, notes and accounts, animals, leases of real estate, etc. **Chattel Mortgage**, a mortgage on personal property, given by a debtor to a creditor, as security for the payment of a sum or sums that may be due. A true copy of the mortgage should be filed in the Clerk's or Recorder's office. The person holding the mortgage should be empowered to take possession of the property at any time he may deem the same insufficient security for his claims. **Chattel Note**, a note similar to any other note with the addition of "what, when and where delivered." The number of dollars must be definitely stated, and the maker may pay the money or the chattels at his own option. If the conditions of delivery are broken, the payee may then demand payment in money. A chattle note is not negotiable.

FORM OF CHATTEL MORTGAGE.

This Indenture, made and entered into this.....day of....., one thousand nine hundred and....., between....., of the town of....., of the County of....., and State of....., party of the first part, and....., of the same town, County, and State, party of the second part,

Witnesseth, that the said party of the first part, for and in consideration of the sum of..... dollars, in hand paid, the receipt whereof is hereby acknowledged, does hereby grant, sell, convey, and confirm unto the party of the second part, his heirs and assigns forever, all and singular, the following described goods and chattels, to wit:

(Here give description of goods and chattels to be mortgaged).

Together with all and singular, the appurtenances thereto belonging, or in any wise pertaining; to have and to hold the above described goods and chattels, unto the said party of the second part, his heirs and assigns forever.

Provided, always, that if the said mortgagor shall pay to the mortgagee, on the.....day of....., in the year....., the sum of.....dollars, then this mortgage is to be void, otherwise to remain in full force and effect.

Provided, also, that the property hereby sold and transferred is to remain in possession of the said.....until default be made in the payment of the debt (and interest) aforesaid, or some part thereof; but in case of a sale or disposal, or attempt to sell or dispose of the same, or a removal of or attempt to remove the same from the said..... aforesaid, the said.....may take the said property, or any part thereof, into his own possession, and shall sell the same at public or private sale; and after satisfying the aforesaid debt, and all necessary and reasonable costs, charges and expenses incurred by him, out of the proceeds of such sale, he shall return the surplus to the said..... or his representative.

In witness whereof, the said party of the first part has hereunto set his hand and seal, the day and year first above written.

Executed in presence of.....} .....[L.S.]

CHAUD MEDLEY.—The killing of a person in an affray in the heat of passion.

CHEATS.—The practices of defrauding or attempts to defraud another of his known right.

CHECKS.—A Check is a written order or request upon a bank, requesting the payment, on presentment, of a certain sum of money to a person there in named, or to his order, or to the bearer. **Altered Check**, a check having all the original writing, except the signature, date, and number, taken out by means of chemicals, which leaves the check blank. It is then rewritten for any amount the swindler desires to put in. See Certified Check. **Raised Check**, a check having the wording and the figures altered, so as to call for more money than the drawer intended to pay. It is possible only when the check is loosely written, with a number of blank places where words may be inserted.

CHECK PAYABLE TO BEARER.

No. 77. Portland, Oct. 3, 19....

FIRST NATIONAL BANK,

Pay to....M. P. Goodykoontz,...or Bearer, ...Five Hundred.....$^{00}_{100}$ Dollars.

$500.$^{00}_{100}$ JOSHUA JUDKINS.

CHECK PAYABLE TO ORDER.

No. 2179. Chicago, Sept. 7, 19....

MERCHANTS' NATIONAL BANK,

Pay to....M. S. Krellings.....or Order, ...One Hundred and Nine.....$^{00}_{100}$ Dollars.

$109.$^{00}_{100}$ GEORGE WALL.

CHECK PAYABLE AT A FUTURE TIME.

No. 17. St. Louis, Jan. 13, 19....

NATIONAL PARK BANK,

Pay to....John M. Manning....or Order, ...Two Hundred..... Dollars, on the 31st inst., without grace. Acceptance waived.

$200. HENRY M. WOOD.

CERTIFIED CHECK.

No. 163. Chicago, June 5, 19....

LAKE SIDE PARK BANK,

Pay to.....John Moss.....or Order, ...Seventy Five..... Dollars.

$75. JOSEPH POORY & CO.

CHOSE.—Personal property. **Chose Local**, anything annexed to a place, as a mill. **Chose Transitory**, anything of a movable nature, which may be taken from place to place. **Chose in Action**, an incorporeal right; a thing which a man has not in possession, but has a right to sue for. **Chose in Possession**, personal things which one has in his possession.

CIRCUIT.—The divisions of country appointed for a particular judge or a court to visit, at stated times, for the trial or hearing of causes. **Circuit Court**, a court having jurisdiction over that division called a circuit, which usually consists of several States, the entire country being divided into nine circuits, one for each of the Supreme Court judges. The Circuit Court ranks next to the Supreme Court.

CIRCULATING MEDIUM.—The medium of exchange, such as cash and bank notes payable on demand.

CIRCUMSTANTIAL EVIDENCE.—Presumptive proof, when the fact itself is not, or cannot be proved by direct testimony.

CITATION.—A summons issued for one to appear at court on a day named.

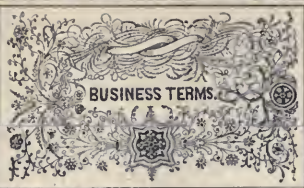
CITIZEN AND ALIEN.—A citizen is one who has a right to vote, and is qualified to hold public offices. An alien is one born in a foreign country, whether living here or not, until he becomes naturalized.

CIVIL ACTION.—Any action prosecuted for the redress of an injury, the prevention of a wrong, or the establishment or recovery of a right. **Civil Death**, regarded as dead in law. **Civil Law**, specifically, the Roman law, as comprised in the Institutes, Code, and Digest of the Emperor Justinian; generically, the established law of every particular nation, commonwealth, or city. **Civil Officer**, except officers of the army and navy, any officer who receives his appointment and acts by national or State authority. **Civil Remedy**, a remedy which an injured person has, by an action, in contradistinction to a criminal indictment.

CLAIM.—A demand of a right, or challenge of interest in anything which is wrongfully held by another.

CLAUSE.—A separate portion of a sentence; a part of a treaty, deed, will, or other written instrument.

CLEARANCE.—A document given by the collector of a port, that a ship has been examined and cleared at the custom house. **Clearing House**, a kind of banking exchange established for the convenience of daily settlements; the drafts and checks on each other are exchanged without presentation, a balance struck, which balance only is paid in cash.



CLERICAL ERROR.—An inadvertent error in calculation or other accidental error on books or documents.

CLIENT.—Any one who seeks advice from a lawyer on legal subjects, or employs him to manage a suit at law for him.

CLIQUE.—A combination of operators controling large capital in order to unduly expand or break down the market.

COALITION.—A combination or alliance for unlawful purposes, between persons or States.

CODE.—A system or collection of laws established by act of legislation. **Codex**, the Code of Justinian; a book or scroll.

CODICIL.—An addition to a will, designed to explain, modify, or change former bequests made in the body of the will. It should be done with the same care and precision as was exercised in the making of the will itself.

COIN.—Pieces of metal stamped with certain impressions fixing their value as a medium of exchange. **Coinage**, the assaying and conversion of pieces of metal into coins or money.

COLLATERAL.—That which is by the side, and not the direct line; that which is added to a thing. **Collateral Facts**, facts which are not in the direct line of evidence. **Collateral Issue**, an issue taken upon some matter aside from the main issue. **Collateral Note**, a note given with stocks or other property as security, empowering the payee to sell if the note should not be paid when it becomes due. **Collateral Security**, security given for the performance of an agreement, or the payment of money. **Collaterals**, pledges of stocks, notes, or chattels, for security of loans and other indebtedness.

FORM OF COLLATERAL NOTE.

STAMP $500. ATLANTA, OCT. 1, 19—

Sixty days after date, I promise to pay to the order of ....John Dunn.... ...Five Hundred Dollars.....without defalcation, for value received.....

Having deposited United States 5-20 Bonds of the nominal value of Six Hundred Dollars,.....

WHICH I AUTHORIZE THE HOLDER OF THIS NOTE, UPON THE NON-PERFORMANCE OF THIS PROMISE AT MATURITY, TO SELL EITHER AT THE BROKERS' BOARD OR AT PUBLIC OR PRIVATE SALE, WITHOUT DEMANDING PAYMENT OF THIS NOTE OR THE DEBT DUE THEREON, AND WITHOUT FURTHER NOTICE, AND APPLY PROCEEDS, OR AS MUCH THEREOF AS MAY BE NECESSARY, TO THE PAYMENT OF THIS NOTE AND ALL NECESSARY EXPENSES AND CHARGES, HOLDING MYSELF RESPONSIBLE FOR ANY DEFICIENCY.

Payable at.....
Due Nov. 30, 19..... } S. J. Bullions.

COLLECTOR.—The chief officer of a collection district or custom house; one who collects bills or accounts.

COLLUSION.—A secret agreement and cooperation between two or more persons, for the one party to bring an action against the other for some evil purpose, as to defraud a third party of his rights.

COLOR.—An apparent right of action. It is either express or implied. **Color of Office**, an unjust act performed by the countenance of office.

COMMERCE.—The exchange of merchandise on a large scale between different places or communities; mercantile business in general, as carried on between individuals or companies of different countries, or of the same country. **Commercial**, pertaining to commerce and trade. **Commercial Law**, that law which seeks to regulate the rights of property and persons who engage in commerce or trade. **Commercial Paper**, bills of exchange, drafts, or promissory notes given in commercial dealings.

COMMISSION.—Percentage allowed upon business done; a warrant from a court to certain persons to take testimony of an absent witness; a body of persons authorized to hear or determine any cause. **Commission Agent**, one who buys or sells on commission. **Commitment**, the sending of a person, by order of a court, to prison for any crime or cause.

COMMON ASSURANCES.—Deeds which assure to persons the titles to their estates. **Common Bail**, bail having the surety merely nominal. **Common Carriers**, those who, for pecuniary consideration, engage to transport the goods or merchandise of those who may offer them. Common carriers are privileged and restricted by law both for their own and the public benefit. They are responsible for the safe delivery of the goods, and are answerable for negligence. **Common Council**, the city council, which is a kind of legislature, having the power to pass such laws (ordinances) as the government of the city requires. **Common Law**, the unwritten law, as opposed to the written or statute law. It consists of rules of action which have become binding from long usage and established custom. **Common Nuisance**, one affecting the general health or happiness. **Commonwealth**, the social state of a country without regard to its form of government; a country having a republican form of government.

COMPACT.—A covenant or agreement between persons or nations.

COMPANY.—A corporation; a term used in a firm's name to indicate other partners the names of whom are not given.

COMPENSATION.—Award of damages; that which is paid or done to a person, of equal value to that which he has been deprived of.

COMPETENCY.—Qualified to act in any capacity; sufficiency; the legal ability of a witness to testify on a trial.

COMPLAINANT.—The one who commences a prosecution or proceeding against another. **Complaint**, a formal allegation or charge made to an officer that some person has been guilty of an offense, and offering to prove the fact and seek a remedy.

COMPOSITION.—The adjustment of a debt, or avoidance of an obligation, whereby the creditor accepts a part of such debt, and the whole is discharged.

COMPOUNDING A FELONY.—The acceptance of a consideration for forbearing to prosecute, when the party robbed knows the felon. It is a criminal offense.

COMPROMISE.—A settlement of a dispute between parties by mutual consent reached by concessions on both sides.

COMPTROLLER.—An officer, in some States called auditor, whose duty it is to examine and adjust accounts, superintend the collection of money, and draw warrants when money is paid out.

COMPURGATOR.—One who swears that he believes the oath of another person, made in defense of his own innocence.

CONCEALMENT.—Suppression of facts and circumstances by one of the parties to a contract, from the other, which in justice ought to be made known.

CONCLUSIVE EVIDENCE.—That evidence which cannot be contradicted or controlled by any other evidence.

CONDEMNATION.—The act of judicially condemning or adjudging guilty, unfit for use, or forfeited; a sentence.

CONDITION.—A restraint in a contract or agreement; a restriction or qualification in the conveyance of personal property or real estate.

CONFEDERACY.—A league or compact between individuals, whether persons or nations; an agreement between two or more States or nations, by which they unite for their mutual protection and good.

CONFESSION.—The acknowledgment by one under arrest of the crime charged against him.

CONFIDENTIAL.—Secret; trusted in, or trustworthy. **Confidential Communication**, statements which are made to others in confidence, and when made between husband and wife, or to a counselor, clergyman, or physician, in an official capacity, are not subjects to be disclosed on judicial inquiry. **Confidential Creditors**, those whose claims are of such a character that they take precedence of other creditors. **Confidential Debts**, debts which have been incurred for borrowed money, and regarded as having precedence to the payment of other debts.

CONFISCATE.—To take property, or condemn it to be taken, as forfeited to the public treasury.

CONFUSION OF GOODS.—The intermixture of the goods of two or more persons, making it impossible to distinguish the goods of the different parties. **Confusion of Rights**, a method by which debts are extinguished, by uniting the qualities of debtor and creditor in one and the same person.

CONGRESS.—The national legislative body, divided into the Senate and House of Representatives; an assembly of envoys, deputies, etc., from different countries, who meet for their common good, or to treat of their mutual concerns.

CONNIVANCE.—Corrupt or guilty assent, indirectly given to another, that he may do some illegal act; an accessory.

CONSANGUINITY.—Blood relationship as distinguished from the marriage affinity; the relation existing between persons descending from the same ancestor.

CONSENT.—Capable, deliberate, and voluntary agreement and assent of opinions, which may be either expressed or implied. **Age of Consent**, the age fixed by statute, and varying in different States and countries, at which one is adjudged competent to give consent.

CONSIDERATION.—That which is done, or promised to be done, in exchange for a promise; the price or inducement offered a person to enter into a contract.

CONSIGNEE.—The person to whom goods or other things are sent or consigned. **Consignment**, goods sent by one person to another, to be sold on the former's account. **Consignor**, one who consigns or transmits goods. (See Shipment).

CONSOLS.—A fund formed by the consolidation of different annuities, and is in use in various European countries.

CONSPIRACY.—An agreement or combination between two or more persons to accomplish some unlawful purpose.

CONSTABLE.—An officer of limited power, whose duty is to serve all writs and processes issued by justices of the peace; an officer whose duty is to keep the peace within the district assigned him.

CONSTITUTION.—The fundamental, organic law of a nation, state, society, or other organized body of men, securing to each member his rights and defining his duties.

The following form for a lyceum or literary society, will serve as a model, illustrating the general form, articles, sections, by-laws, etc.

CONSTITUTION FOR A LITERARY SOCIETY.

PREAMBLE.

We the undersigned, being desirous of acquiring and disseminating Literary and Scientific Knowledge; and believing that in order to fit ourselves for the varied duties of life we should cultivate a correct mode of speaking, and qualify ourselves by practice to express our opinions in public in a correct manner; knowing that these ends can in no other way be so speedily accomplished as by forming an association for such a purpose, have organized a Society for Mutual Improvement in Elocution, Composition and Debate, and have adopted the following constitution, by-laws, rules and regulations for our government:

CONSTITUTION.

ARTICLE I.—NAME.

The title and name of this Society shall be.....
.....

ARTICLE II.—OBJECTS.

The objects of this Society shall be the free discussion of any subject coming before its members; also the improvement of all connected with it, in debating, social advancement, and general literature.

ARTICLE III.—OFFICERS.

The officers of this Society shall consist of a President, two Vice-Presidents, a Corresponding Secretary, a Recording Secretary, a Treasurer, a Librarian, a Critic and Censor; all of whom shall be elected.....by ballot, on the .....in each....., said officers to hold their position until their successors are elected and installed.

ARTICLE IV.—MEMBERSHIP.

Section 1.—Any lady or gentleman may become a member of this Society by the consent of the majority of the members present, the signing of the constitution, and the payment of..... .....as membership fee.

Section 2.—It shall be the privilege of the Society to elect any person whose presence may be advantageous to the Society, an honorary member, who shall not be required to pay membership fees or dues.

ARTICLE V.—DUTIES OF OFFICERS.

Section 1.—It shall be the duty of the President to preside at the Society; to call the meeting to order at the proper time; to enforce a rigid observance of the constitution, by-laws, rules and regulations of the Society; appoint all committees, and see that the officers perform their respective duties; inspect and announce the result of all ballotings or other votes. He shall never vote except in case of a tie vote, when he shall give the casting vote; he shall neither make nor second any motion or amendment, nor take part in any discussion while in the chair; he shall draw upon the Treasurer for all sums of money that may have been voted for; preserve order, and decide all questions arising therefrom.

Section 2.—The first Vice-President shall preside in the absence of the President, and in case of the absence of both the President and first Vice-President, it shall be the duty of the second Vice-President to preside.

Section 3.—The Corresponding Secretary shall notify absent members of their duties, for the succeeding meetings; also, each person elected a member, of such election; and shall write all communications.

Section 4.—The Recording Secretary shall call the roll at every meeting, and report delinquents; and shall keep the records of the Society, and read at each meeting a report of the work done at the preceding meeting.

Section 5.—The Treasurer shall keep the funds of the Society; notify each member who is delinquent of his dues or fines, and collect all money due the Society. He shall make no payments without a written order from the President, and countersigned by the Recording Secretary; and at the.....meeting of each.....he shall present a written report of the financial condition of the Society.

Section 6.—It shall be the duty of the Librarian to keep, in a careful manner, all books, records, and manuscripts in the possession of the Society.

Section 7.—The Critic shall be a judge of literary merit; shall carefully observe the speakers' words and actions; correct all grammatical errors and imperfect pronunciation; and make a report of the same at the close of each meeting.

Section 8.—The Censor shall inspect the manners and morals of the members; watch closely their conduct while in the debating hall, and fine all refractory or disorderly members, handing over the list to the Treasurer every week to collect.

ARTICLE VI.—ELIGIBILITY OF OFFICERS.

Section 1.—No person is eligible to an office until he has been a member of this Society.....

Section 2.—No person shall be elected to office more than twice in succession, and a majority of the legal votes cast shall be necessary to a choice.

Section 3.—In case of a vacancy occurring in any office, the Society will go into an immediate election to fill the same, and the officer elect shall take his seat immediately after such election.

ARTICLE VII.—REMOVAL FROM OFFICE.

Section 1.—Should any officer or member of a committee neglect, or be found incompetent to discharge the duties of his office, he may be removed by a vote of two-thirds of the members present.

Section 2.—All places of absentees in committees may be filled by said committees.

ARTICLE VIII.—AMENDMENTS.

No addition, alteration, or amendment can be made to this constitution, neither can any part be repealed, without a four-fifth vote of the Society and.....weeks' notice.

BY-LAWS.

ARTICLE I.—MEETINGS.

This Society shall assemble every ....., unless otherwise ordered. The hour for meeting during the months from October to March inclusive shall be seven o'clock P.M., and varied during the rest of the year as the Society sees best. The President may call a special meeting of the Society at a request of five members.

ARTICLE II.—QUORUM.

At any meeting of the Society seven members shall constitute a quorum.

ARTICLE III.—MEMBERSHIP.

Section 1.—When a member proposes a candidate for membership, he shall submit his name and residence, and inform the Society that the candidate has read a copy of its constitution and by-laws, and that he approves of them. The Society will then determine his entrance by ballot; a majority vote being necessary to elect.

Section 2.—Every candidate, upon being initiated, shall sign the constitution and by-laws, and thereby agree to support the same, and pay all legal demands against him as long as he remains a member.

ARTICLE IV.—INITIATION.

Section 1.—Before taking his seat as a member, every person shall pay to the Treasurer an initiation fee of.....

Section 2.—The following affirmation shall be required of each person becoming a member: "I do hereby solemnly promise, that I will observe and strictly obey all the laws, rules and regulations set down in the constitution of this Society; and do further declare that I entertain no ill-will toward any member, and will endeavor to promote the welfare of this Society."

ARTICLE V.—INAUGURATION.

At the inauguration of each officer he shall be required to make the following affirmation: "I do hereby solemnly promise that I will faithfully discharge the duties of my office to the best of my knowledge and ability."

ARTICLE VI.—DUES AND TAXES.

Section 1.—Every member shall pay the sum of.....each....., in advance, into the treasury.

Section 2.—If at any time the funds of this Society should be exhausted, or inadequate to meet the demands, there shall be an equal tax upon each member to make up the deficiency.

ARTICLE VII.—ARREARAGES.

Section 1.—No member in arrears for dues or fines shall be privileged to vote or speak on any question, until said arrearages are paid.

Section 2.—Every member who shall refuse or neglect to pay his dues or fines for the space of.....weeks, shall stand suspended, and shall not be reinstated until all arrearages are paid.

ARTICLE VIII.—FINES.

The chair shall have power to impose the following fines:

Section 1.—Any member who shall use improper language, refuse to obey the orders of the chair, or be guilty of disorderly conduct, shall be fined for each offense.....cents.

Section 2.—A member failing to attend any meeting of the Society without rendering a satisfactory excuse, or leaving the Society before adjournment, unless excused, shall be fined for each time.....cents.

Section 3.—Any member failing to perform his duty as assigned on the programme, shall be fined.....cents for each nonperformance.

Section 4.—Should any officer neglect to have at the Society any books or papers necessary for use, or neglect to perform his duties, he shall be fined.....cents for each offense.

Section 5.—For any acts of negligence, or violations of the rules and regulations, not noticed in the foregoing sections, the chair may, with the consent of the Society, impose a fine not less than.....cents, and not exceeding .....dollar.

ARTICLE IX.—APPEALS.

Any member shall have the right, when fined, to appeal from the chair to the meeting, and unless the Society sustain the chair, the fine shall be remitted.

ARTICLE X.—RESIGNATION.

No member shall resign unless his resignation be submitted in writing two weeks previous to the time of resignation. No such resignation shall be received by the Society until all arrearages are paid.

ARTICLE XI.—SUSPENSION AND EXPULSION.

Section 1.—Any member who shall refuse to conform to the constitution, by-laws, rules and regulations of this Society, or be guilty of repeated disorderly conduct, shall be subject to suspension or expulsion.

Section 2.—The motion for the expulsion of a member shall be announced at two regular meetings previous to action being taken, when the accused may be permitted to show reasons why he should not be expelled. If three-fourths of the members present vote in favor of the motion, it shall be carried.

ARTICLE XII.—COMMITTEES.

Section 1.—There shall always be one standing committee, and special committees may be appointed by the President.

Section 2.—All reports of committees shall be presented in writing, and signed by the members offering the same.

RULES AND REGULATIONS.

The rules and regulations governing the working and organization of public meetings and deliberative bodies, will be found elsewhere in this volume. The whole or any part of these may be adopted for use in this Society.

ORDER OF BUSINESS.

1. Call to order.
2. Calling of the roll.
3. Reading minutes of previous meeting.
4. Propositions for membership.
5. Inauguration.
6. Initiation.
7. Balloting for candidates.
8. Reports of committees.
9. Secretary's report.
10. Treasurer's report.
11. Corresponding Secretary's report.
12. Unfinished or miscellaneous business.
13. Literary exercises.
14. Debate.
15. Critic's report.
16. Adjournment.

FRATERNAL COURTESY.

It is specially enjoined here that the members of this Society treat each other with due respect; that all personal allusions be avoided, and concord and good-fellowship be cherished and preserved as the prominent feature of the Society.

CONSUL.—An official appointed by the government to reside in a foreign country, to watch over the commercial interests, and to protect the seamen, of the country sending him. **General Consul**, a consul of the highest rank, and stationed at a principal place, or at several minor places.

CONSUMPTION.—The quantity of any thing used or consumed.

CONTINGENCY.—An event or occurrence which may or may not come to pass; a casualty or possibility. **Contingent Legacy**, a legacy subject to the occurrence of some uncertain event. **Contingent Remainder**, a remainder so limited that it is made to depend upon some event which may never occur. **Contingent Use**, the use limited in a land conveyance which may or may not happen to vest.

CONTEMPT.—The disobedience to the orders or rules of a court or legislative body. It is a punishable offense.

CONTINUOUS TRIAL BALANCE.—A Trial Balance continued from month to month throughout the year. The following form illustrates its use. The italicized figures show the balances of previous months.

FOLIO.	LEDGER ACCOUNTS.	JANUARY. BALANCE AND DR.	JANUARY. BALANCE AND CR.	FEBRUARY. BALANCE AND DR.	FEBRUARY. BALANCE AND CR.
	Balance,		*2000 00*		*2000 00*
1	Stock,	.....	.....	.....	.....
				1750 00	
4	Accts. Recev.	1750 00	.....	1450 00	1675 00
					600 00
10	Accts. Pay.,	875 00	1275 00	970 00	1500 00
		1000 00			*1750 00*
16	Cash,	.....	2150 00	3110 00	1750 00
		675 00		*615 00*	
21	Real Estate,	.....	.....	.....	.....
				200 00	
51	Salary,	200 00	.....	200 00	.....
		1000 00			
61	Misc.,	*800 00*	*200 00*		
	Bal. rec. mon.	*2300 00*	*1000 00*		
	Month's business	3625 00	3625 00		

Each month should balance as does January, both in the amount of business done, and the balances of previous months.

CONTRA.—On the opposite side; over; against. **Contraband**, trade carried on contrary to the laws of a country; **Contraband Goods**, articles prohibited by law to be imported or exported under certain restrictions.

CONTRACT.—A covenant or engagement between parties to do or not to do a specified thing. The following are the rules and legal requirements of contracts and agreements:

1. Every one must fulfill every agreement he makes.
2. A contract to do an impossibility is void.
3. A contract forbidden by law is void.
4. Contracts made by minors, lunatics and idiots, is not binding on them.
5. A proposition not assented to by both parties is not binding.
6. A promise without consideration is not binding.
7. A contract which one is induced to make

BUSINESS TERMS.

through fraud or deceit is not binding on him.

8. Contracts of much importance should be in writing.
9. One has no right to sue on a contract unless he has performed, or offered to perform his part.
10. A contract made by a minor becomes binding after he becomes of age, if he then ratifies it.
11. The value of the consideration is unimportant.
12. A guaranty must be in writing.
13. A contract which cannot be performed within a year must be in writing.

The general form of a contract is the same as that of an agreement, which see.

CONVERSION. — The application of goods one has in his possession to his own use without the consent of the owner.

CONVEYANCE. — An instrument, as a deed or mortgage, transferring the title of property from one person to another.

Conveyancing, the science and art of examining the titles of, and conveying property from one person to another.

COPARTNERSHIP. — The joining of two or more persons into one firm for the purpose of carrying on any enterprise; the same as partnership.

COPYRIGHT. — The exclusive privilege an author enjoys, of printing and disposing of his original writings.

Copyrights are granted for a period of twenty-eight years, and further continued for fourteen years, if application is made for such continuance six months before expiration of original copyright.

Those desiring to secure copyrights, if inexperienced, should address the "Librarian of Congress, Washington, D.C.," for circular giving latest copyright laws, which will be sent on application.

It is a comparatively easy matter to secure a copyright, and no one should hesitate to make his own application.

Copyhold, a tenure founded upon custom and usage.

CORNER. — A stockbroker's term used to express a monopolizing arrangement entered into between dealers for the purpose of creating a fictitious value in any kind of produce, stocks, or other commodity.

CORONER. — An officer who, with the assistance of a jury, inquires into the cause of any violent, sudden, or mysterious death, or death in prison, usually at the place where the death occurred. Corresponds to **Medical Examiner** in some States.

CORPORATION. — A name applied to an organization, usually consisting of several persons, authorized by law to transact business as an association or individual, under some name. The following are legal points relating to corporations:

1. Corporations are formed by an act of the Legislature.
2. Corporations have power to do only the acts expressly allowed by the law under which they were incorporated.
3. Every contract of guaranty must be in writing, and signed by the surety.
4. Change of primary liability renders the secondary void.
5. After a surety has paid the debt, he has a claim for it upon the principal debtor.
6. For ordinary business contracts, the time allowed to commence suit is usually five or six years.

See Partnership.

FORM OF APPLICATION FOR LICENSE.

STATE OF.....}
CITY OF.....}

To ___ ___, Secretary of State:

We, the undersigned, ___ ___, ___ ___, ___ ___, ___ ___, ___ ___, propose to form a corporation under an act of the General Assembly of the State of....., entitled "An act concerning corporations," approved....., 19...., and all acts amendatory thereof, and that, for the purpose of such organization, we hereby state as follows, to wit:

The name of such corporation is.....

The object for which it is formed is to carry on the business of..... ....., and to sell.....

The capital stock shall be Five Hundred Thousand ($500,000) Dollars, divided into five thousand shares of one hundred dollars each.

___ ___:
___ ___:
___ ___:

(Endorsed on the back by a notary).

STATE OF.....}
CITY OF.....}

I, a notary public, in and for the said City of....., and State aforesaid, do hereby certify that on this.....day of....., A.D. 19...., personally appeared before me ___ ___, ___ ___, ___ ___, ___ ___, ___ ___, to me personally known to be the same persons who executed the foregoing statement, and severally acknowledged that they executed the same for the purposes therein set forth.

In witness whereof, I have hereunto set my hand and seal, the day and year above written.

___
Notary Public.

Also, there must be a further endorsement describing the nature of the corporation thus: Statement of incorporation of the..... Location, City of....., State of..... Capital stock, $500,000. Object, ...

When the above application is sent to the Secretary of State, he will issue a State License for incorporating, upon receipt of which the incorporators must return the following document, when the Secretary will at once issue a charter to the corporation:

To ___ ___,
SECRETARY OF STATE:

The commissioners duly authorized to open books of subscription to the capital stock of the..... ....., pursuant to license heretofore issued, bearing date the..... day of.....A.D. 19...., do hereby report that they opened books of subscription to the capital stock of the said company, and that the said stock was fully subscribed; that the following is a true copy of such subscription, viz.: We, the undersigned, hereby severally subscribe for the number of shares set opposite our respective names to the capital stock of the..... ....., and we severally agree to pay the said company on each share the sum of one hundred dollars.

	SHARES.	AMOUNT.
___ ___	1,000	$100,000
___ ___	1,000	100,000
___ ___	1,000	100,000
___ ___	1,000	100,000
___ ___	1,000	100,000
	5,000	$500,000

That said subscribers met at the time and place specified and proceeded to elect directors, and that the following persons were duly elected for the term of one year: ___ ___, ___ ___, ___ ___, ___ ___, ___ ___.

(Signed) ___ ___:
___ ___:
___ ___:

CORRESPONDENT. — One who carries on intercourse with another by letter.

CORRUPTION OF BLOOD, — The inability to inherit real estate or to transmit it to others, growing out of an attainder.

COSTS. — Expenses incurred in litigation, or during the progress of a suit at law.

COUNSELOR AT LAW. — An officer retained by a client to conduct a suit for him. Counselor at law and attorney at law are different, the latter being employed in the management of the more mechanical parts of the suit.

COUNTERFEIT. — A kind of forgery applied to false coin or paper money.

COUNTERMAND. — A contrary order cancelling those already given, and may be either express or implied. A **Counter Claim** is a kind of off-set demanded by a defendant.

COUNTING-ROOM. — A room in which merchants keep their accounts and do their business.

COUNTY. — A division of a country or State, containing several towns. **County Commissioners**, the chief corporate body of a County, usually consisting of three members. (Called Board of Supervisors in a few States). They have charge of the County property, and make orders and contracts in relation to the building or repairing of the court-house, jail, and other County buildings.

COUPON. — An interest certificate attached to bonds, etc., and at stated times is cut off and interest collected. (See U.S. Bonds for illustration).

COURSE OF EXCHANGE. — The sum merchants pay for bills of exchange to enable them to make remittances from one country to another.

COURT. — A place where justice is administered. — Courts are either of record or not of record.

The national judiciary system con-

sists of three grades of courts: the Supreme Court, the Circuit Courts, and the District Courts. The Supreme Court is the highest court in the land, and was established by the Constitution itself. The others were established by Congress. **Court in banc** (also spelled bank), the full court sitting at its regular terms. **Court of Appeals**, a court, generally, of last resort, as a State, or the U.S., Supreme Court. **Court of Chancery** (or of Equity), a court having power to grant certain kinds of relief; such as compelling a man to perform a contract, instead of awarding damages for his not doing it, or granting an injunction against one's doing an unlawful act. **Court of Claims**, a court established by Congress, in which those having claims which they believe ought to be paid by the United States, may bring a suit in the ordinary way, in form against the United States, and this court decides whether they should be paid. **Court of Common Pleas** (or County Court), a court of original jurisdiction, for the trial of causes according to the common law, and is somewhat higher than justices' courts. **Court of Errors**, a court of review. **Court of King's Bench**, the supreme court of common law in England. **Court Martial**, a court having jurisdiction in military and naval offenses. **Court of Oyer and Terminer**, courts of criminal jurisdiction. **Court of Probate**, a court having jurisdiction over the probate of wills and settlement of estates. **Court of Record**, a court having a seal, and whose acts and proceedings are enrolled in parchment for a perpetual memory and testimony. **Court of Sessions**, there are two, special and general, having jurisdiction in criminal cases. **Court of St. James**, the usual designation of the British court.

(See also Circuit Courts, District Courts, Justice's Courts, Police Courts, Supreme Courts, and State Circuit Courts).

COVENANT.—An agreement of sufficient consideration, between two or more persons, in writing and under seal, wherein one of them promises certain things to the other; a certain form of action which lies to recover damages for a breach of a contract under seal.

COVIN.—A collusive agreement between two or more persons to defraud and prejudice another of his rights.

CRAMPED.—Pinched for money to meet engagements.

CREDENTIALS.—Papers which give a title or claim to credit or confidence, and show that a person has a right to exercise official or other power.

CREDIT.—The opposite of debit; what is due another; the transfer of goods to another with the expectation of future receipt of payment; the ability to borrow money. **Creditor**, one to whom something is owing; **Creditors' Bill**, an equity bill, filed by one or more creditors in behalf of all the creditors who shall come in under the decree, for an account of the assets of an estate. **Credit System**, the system of selling goods on time. **Credit Mobilier**, a joint-stock company established in Paris in 1852, with exceptional chartered privileges, among which were: 1. To originate and conduct trading enterprises of all kinds on the principle of limited liability. 2. To supersede or buy up companies, such as railroads and others, substituting scrip and shares of their own for those of the company. The term has become familiar to persons in this country through the Congressional investigations of the Credit Mobilier Company of the Pacific Railroad.

CRIME.—A misdemeanor or felony; any violation of law. **Crime against Nature**, sodomy. **Criminal Action**, a prosecution conducted on behalf of the people against one charged with a criminal offense. **Criminal Law**, the division of the law which treats of crimes.

CROPS.—A tenant for a definite time, whose lease expires after the land is sown or planted, and before harvest, is not entitled to the crop; but if the lease is for an indefinite time, or if it depends upon an uncertain event, and is terminated before harvest, the tenant is entitled to the crop.

CROSS.—Persons who cannot write their names are required to use as a substitute the sign of the cross (x). Anciently kings and nobles used the same sign, but not ignorantly, as it was used by those who could, as well as by those who could not write, as a symbol that the person making it pledged himself to the truth of the matter to which he affixed it. Hence, though people now write or subscribe their names, they are still said to sign. **Cross Action**, an action by the defendant against the plaintiff in the same suit. **Cross Bill**, a bill brought by a defendant against a plaintiff in or against other defendants in the same suit, or against both, touching the matters in the original bill. **Cross Examination**, a close interrogating or questioning of a witness by the adverse party, in order to test the examination in chief.

CURATOR.—One who is legally appointed to take charge of the estate of an imbecile; a guardian.

CURBSTONE BROKER.—A term applied to a stock operator who does business on the sidewalk or pavement.

CURRENCY.—Government or bank notes circulating as a substitute for metallic money. **Current**, passing freely from hand to hand; now running

CURTESY.—A freehold estate which a man has on the death of his wife, and during his life, in the lands which she had in fee-tail or fee-simple, provided they had issue born alive, which might have inherited.

CUSTOM.—An unwritten law established by long usage; the revenue duties levied on imported goods; the patronage or support of any establishment. **Customers**, habitual purchasers from any establishment. **Custom-House**, a place appointed by a government where goods are entered on importation, and where the duties are to be paid. **Custom-House Broker**, one employed by merchants to act for them in the details of the custom-house business, and who from the experience in the routine and other acquired knowledge is often able to facilitate the red-tape processes of the custom-house. **Custom-House Entry**, a statement made in writing to the collector of the district where the owners are consignees of goods. **Custom-House Officer**, a legally appointed agent of the government who attends to the details of the custom-house. **Customs**, taxes or revenue duties levied on imported or exported goods.

DAMAGE.—A sum given as a compensation for an injury. **Damaged Goods**, merchandise injured or impaired, from whatever cause. **Damages**, the estimated reparation in money recoverable by a person who has sustained an injury, from him who caused it.

DATE.—The statement in a letter, etc., of the day of the month and year, upon which the letter, etc., was written.

DAY.—A legal day includes the whole twenty-four hours, without reference to the season of the year, or the amount of light and darkness. An obligation to pay on a certain day is discharged if the money be paid before twelve o'clock at night. **Day Book**, a book containing a concise history of one's business transactions, whether with few or many persons, written up under the date and in the order of their occurrence, and arranged with reference to the convenience of journalizing. **Days of Grace**, three additional days allowed under the common law for the payment of commercial paper after the time named in the paper for its maturity. By special enactment in some of the States, days of grace are not allowed. For a list of these, see Statistical Bureau of the United States-index.

FORM OF SINGLE ENTRY DAY BOOK.

St. Louis, Jan. 1, 19——.

	Proprietor	C%			800 00
	COMMENCED BUSINESS WITH THE FOLLOWING RESOUCES:				
	STORE AND LOT,		400 00		
	HORSE AND WAGON,		200 00		
	CASH ON HAND,		200 00		
	2				
10	B.S. CUSHING,	CR.			300 00
	BY MDSE. AS PER INVOICE.				
	3				
10	M.T. GRUBBS,	DR.			
	TO MDSE. AS PER BILL.				415 00
	4				
10	J.J. TOLIN,	DR.			
	TO 10 LBS. O. SUGAR, @ 10¢.		1 00		
	" 40 YDS. SHEETING, " 30¢.		12 00		13 00

FORM OF DOUBLE ENTRY DAY BOOK.

St. Louis, Jan 1, 19——.

	COMMENCED BUSINESS WITH THE FOLLOWING RESOURCES:			
	STORE AND LOT,	400 00		
	HORSE AND WAGON,	200 00		
	CASH ON HAND,	200 00		800 00
	2			
	BOUGHT OF B.S. CUSHING			
	MDSE. AS PER INVOICE,			300 00
	3			
	SOLD M.T. GRUBBS			
	MDSE. AS PER BILL,			415 00
	4			
	SOLD J.J. TOLIN			
	10 LBS. G. SUGAR, @ 10¢.	1 00		
	40 YDS. SHEETING, " 30¢	12 00		13 00

DEAL.—To buy or sell; to trade or traffic. **Dealer**, a trader in goods, of whatever kind; the regular customers or depositors of a bank. **Dealings**, transactions of any kind between two or more persons.

DEATH OF PARTNER, FORM OF NOTICE.

SIR,—It is with much regret that I have to inform you of the decease of my friend and partner, Mr. ....., which took place on ..... As managing partner, and executor of Mr. ....., the charge of liquidating the affairs of the firm devolves upon me, and in the discharge of this duty I shall henceforth sign "....., in liquidation." I beg further to state that the business will be continued in future on my own account, and that my best care shall be given to any matters which you may intrust to me. I am, etc.

DEBASE.—To reduce from a higher to a lower state or grade by adulteration.

DEBENTURE.—A certificate signed by a public officer, as evidence of a debt due to some person; a certificate given by the collector of the port of entry to an importer for drawback of duties on imported merchandise; duties on which when the merchandise is exported are to be refunded.

DEBIT.—A term used in bookkeeping to express the left-hand page of a ledger. **Debt**, that which one person owes another; obligation or liability. **Debtor**, one who owes a debt.

DECIMAL.—Any number expressed in the scale of tens. **Decimal Currency**, any currency based upon the decimal system, such as the United States money.

DECLINE.—A fall in value, as in the market value of grain, produce, etc.

DEED.—A written instrument under seal, duly executed and delivered, containing some transfer, bargain, or contract.—The term is usually applied to the transfer of real estate. (See Mortgage).

FORM OF WARRANTY DEED.

THIS INDENTURE, made this ..... day of ....., A. D. 19....., between ..... of ....., County of ....., and State of ....., and ....., his wife, of the first part, and ....., of the same place, of the second part,

WITNESSETH, that said party of the first part, for and in consideration of ..... Dollars in hand, paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained, and sold, and by these presents do grant, bargain, and sell, unto the said party of the second part, his heirs and assigns, all the following described lot, piece, or parcel of land, situated in the ....., in the County of ....., and State of ....., to wit:

(Here describe the property).

Together with all and singular the hereditaments and appurtenances thereto belonging or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues, and profits thereof; and all the estate, right, title, interest, claim, and demand whatsoever, of the said party of the first part, either in law or equity, of, in, and to the above bargained premises, with the hereditaments and appurtenances. To have and to hold the said premises above bargained and described, with the appurtenances, unto the said party of the second part, his heirs and assigns forever. And the said ....., and ....., his wife, parties of the first part, hereby expressly waive, release, and relinquish unto the said party of the second part, his heirs, executors, administrators, and assigns, all right, title, claim, interest, and benefit whatever, in and to the above described premises, and each and every part thereof, which is given by or results from all laws of this State pertaining to the exemption of homesteads.

And the said ....., and ....., his wife, party of the first part, for themselves, their heirs, executors, and administrators, do covenant, grant, bargain, and agree, to and with the said party of the second part, his heirs and assigns, that at the time of the ensealing and delivery of these presents they were well seized of the premises above conveyed, as of a good, sure, perfect, absolute, and indefeasible estate of inheritance in law, and in fee simple, and have good right, full power, and lawful authority to grant, bargain, sell, and convey the same, in manner and form aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, and encumbrances of whatever kind or nature soever; and the above bargained premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against all and every person or persons lawfully claiming or to claim the whole or any part thereof, the said party of the first part shall and will warrant and forever defend.

IN TESTIMONY WHEREOF, the said parties of the first part have hereunto set their hands and seals the day and year first above written.

Signed, sealed, and delivered in presence of } .....,[L.S.]
.....,[L.S.]

DEFALCATION.—Deduction or discount; embezzlement of money by an officer having it in charge. **Defamation**, words spoken of another tending to injure his good name. **Default**, the non-performance of duty; the failure to appear in court at a specified time; the failure to take certain steps necessary to secure the benefit of law. **Defaulter**, one who is criminally deficient in his accounts.

DEFEASANCE.—A condition relating to a deed, contract, or agreement, which, when performed, renders them void.

DEFENSE.—The plea or answer of the defendant in a suit at law; resisting an injury.—A man is justified in using force, even to the death of his assailant, in order to defend himself or his family. **Defendant**, the person who is sued in a personal action.

DEFORCEMENT.—The wrongful holding any lands or tenements to which another has a right.

DELEGATE.—A representative; a person sent by another to act for him.

DEFICIT.—A deficiency; the difference between an accountant's statement of assets and the assets themselves.

DEL. CREDERE.—A commercial term signifying a guarantee of the solvency of the purchaser.

DELINQUENT.—One who is guilty of some crime, offense, or has failed to perform his duty.

DELIVERY.—In commercial affairs the transfer of the possession of goods from one party to another. **Contracts**,—the acceptance of a written contract is usually made by keeping the paper, and consequently it may be said that delivery is necessary to a written contract. **Deeds**,—delivery of the executed deed to the party to whom the property is transferred is the last and most important step of all, and without it there can be no transfer. **Goods**,—if any part of the goods are delivered to the purchaser and accepted by him the whole contract is binding, though not written, i.e., the seller must deliver all, and the buyer must pay for all. Delivery is not essential to a sale, as between the parties, but it is as to third parties; for instance, if A sell an article to B and not deliver it to B, and afterward sell the same article a second time, to C, the first sale is void, but B can hold A responsible for fraud.

DEMAND.—The asking or seeking for what is due, or claimed to be due. **Notes and Drafts**,—no demand is necessary to hold the maker of a note or the acceptor of a draft responsible. Suit may be brought as soon as the paper becomes due. **Indorsers**,—to hold the indorser of a note, or the indorser or drawer of a draft responsible, the paper must be presented and payment demanded of the indorser, maker or acceptor on the very day it becomes due. (See Responsibility). **Demand Note**, a note made payable by its terms on demand, or one having no time of payment specified.

FORM OF DEMAND NOTE.

$100. Indianapolis, May 17, 19....

On demand (or one day after date) I promise to pay ... William Crowe ... or order ... One Hundred ... Dollars, value received, with interest.

HIRAM HADLEY.

DEMESNE.—Lands in which the owner has absolute property. **Demise**, the conveyance of land in fee, for life, or for a term of years; used synonymously with death.

DEMOCRACY.—A form of government in which the people rule.

DEMURRAGE.—An allowance made to the owners of a vessel for detaining her in port longer than a specified time. **Demurrer**, a pause put

BUSINESS TERMS.

to any action upon a point of difficulty, which must be determined by the court, before any further proceedings can be had therein.

DEPONENT.—A witness, usually giving his testimony upon oath, by an affidavit or deposition. **Deposition**, the testimony of a witness given in writing, by way of answer to interrogatories; also a kind of affidavit.

DEPOSIT.—Money paid on account of a purchase; gross amount to the credit of a dealer; money placed in a bank; a delivery of goods to be kept for the depositor, without reward, and to be returned when required. **Deposit Fund** (of U.S.), in 1836 there had accumulated in the national treasury about thirty-six millions of dollars more than was needed for the support of the government. By act of Congress this surplus was distributed among the States then existing, to be kept by them until called for by Congress. It has never, and in all probability, never will be called for. The States have used large portions of it for school purposes. **Deposit Book**, a small book furnished by the bank to the depositor, in which his deposits are entered by the bank. The book is held by the depositor, and constitutes receipts for his deposits from time to time. (See Pass Book for form, which is the same as Deposit Book). **Deposit Tickets** (or Checks), slips for the use of depositors in describing the funds offered by them to banks for deposit.

FORM OF DEPOSIT TICKET.

MERCHANTS' NATIONAL BANK.
Deposited by
NEWTON J. GOODKNOONTZ.
Atlanta, Ind., May 1, 19....

Bank Bills	$ 700	00
Specie	250	00
Drafts	575	00
	1525	00

DEPOT.—A place where goods are deposited; a store or warehouse.

DEPUTY.—One who is authorized by an officer to act in his place.

DERELICT.—Anything cast away, forsaken, or abandoned, in a way indicating that the owner lays no further claim to it. **Derelict Lands**, lands left by water suddenly receding from its usual water-mark.

DESCENT.—Hereditary succession. **Descendants**, those who descend as offspring from an individual in a direct line.

DESERTION.—The act of abandoning the public service, as of the army; also one's wife and children.

DETAINER.—The keeping possession of the goods of another, or depriving him of his liberty. **Detinue**, a writ to recover goods in specie, or their full value, together with damages for the detention; replevin. **Deterioration**, a damage done; lessening in price or value from any cause.

DEVIATION.—In insurance, a departure from the risks described in the policy, without sufficient cause.

DEVISE.—To give real estate, as by a last will and testament. **Devisee**, a person who receives a gift by will and testament.

DIFFERENCES.—The price at which a stock is bargained for, and the rate or day of delivery not usually being the same, the variation is termed the difference.

DIPLOMACY.—The art and practice of conducting negotiations between nations by means of embassadors, etc.

DISCHARGE.—The unloading of the cargo of a vessel; to pay off or to clear by payment, as a debt. **Of Employés**, an employé may be discharged at the end of his time, without any cause, and without notice. If hired at so much per week and for no definite time, he may be discharged at the end of any week. He may also be discharged during the week, or at any time before the close of the period of his engagement, and has no right to insist upon working after his discharge; but if he be discharged without good cause, he is entitled to payment for the whole period of his engagement. **Of Debtors**, the making of an assignment does not discharge a debtor from his debts until they are paid. The discharge must be granted by a court, under certain conditions.

DISCOUNT.—The deduction made for interest for the advance of money upon, or the purchase of, a bill or note not due. **Discount Day**, the day of the week on which the discount board of a bank meets to consider paper offered for discount.

DISCRETION.—A just decision as to matters of propriety and self-control; the ability to distinguish between good and evil. **Age of Discretion**, children at fourteen are said to have acquired legal discretion. **Discretionary Trust**, one which can only be administered by the exercise of prudence and judgment.

DISHONORED.—A check, draft, or promissory note is dishonored by a failure to pay it when due. A bill of exchange is dishonored by a refusal to accept it.

DISINHERIT.—To debar an heir from an inheritance, which otherwise would be inherited by him.

DISORDERLY HOUSE.—Any house the inmates of which behave so badly as to become a nuisance to the neighborhood; a house of ill-fame.

DISSOLUTION.—The breaking up of a partnership or corporation. **Of Partnership**,—either the transfer of an interest or the death of a partner, dissolves a firm or partnership. **Of Corporations**,—1. If formed for a limited time, it is dissolved by its expiration. 2. By the voluntary surrender of its rights to the State. 3. In some cases by a law passed by the Legislature which created it. 4. By becoming insolvent, unable to pay its debts.

FORM OF NOTICE OF DISSOLUTION.

The copartnership heretofore existing between ____, ____, ____, and ____, ____, under the firm name of ____, ____, & Co., is this day dissolved by mutual consent (or, has this day expired by limitation, or as the case may be).

____ is authorized to settle all claims against, or to receive all amounts due, the above named firm.

(Or, Either partner will sign in liquidation). (See Death of Partner).

(Or, The business will be continued by ____ ____ and ____ ____, under the name of ____ ____ & ____ ____, who are authorized to settle the accounts of the late firm).

Feb. 1, 19.... ____ ____.

AGREEMENT TO DISSOLVE PARTNERSHIP.
(By Indorsement).

We, the undersigned, do mutually agree that the within-mentioned partnership be and the same is hereby dissolved; except for the purpose of final liquidation and settlement of the business thereof, and upon such settlement wholly to cease and determine.

Witness our hands and seals this ..... day of ....., A.D. 19....

Signed, sealed and delivered in presence of: ..... [L.S.] ..... [L.S.]

DISTRESS FOR RENT.—The taking by a landlord of property found upon the land, for the payment of rent due.—Formerly this practice was very common. **Distrain**, the act of seizing the personal property of another as a pledge for the satisfaction of a demand.

DISTRIBUTION.—A final settlement of the estate of an intestate, or the proceeds of real estate, by dividing it among the heirs, after all debts and claims are paid.

DISTRICT COURTS.—The lowest in grade of the national courts, the other two being the Supreme and the Circuit. They hear the smaller cases, and appeals are taken from them to the Circuit Courts. **District Attorney**, a lawyer who attends all the courts in a county in which persons are tried for crimes, and conducts the prosecution.

DIVIDEND.—Division of the profits received by stockholders from the earnings of a joint-stock company; the proportional payment made to creditors out of the estate of one who has become bankrupt.

DIVORCE.—The separation of a husband and wife by the operation of law.

DOCK.— The space occupied by prisoners in a criminal court; a slip or water way between two piers or wharves for the reception of vessels. **Dockage**, charge for the use of a dock for the use of a ship or vessel. **Docket**, a register or court calendar; a small piece of paper or parchment containing the effect of a larger one.

DOLLAR.— The monetary unit of value in the United States.—Prior to July 6, 1785, the English pound was the monetary unit. On that date the Continental Congress established the dollar in its place.

DOMAIN.—Land lying about a mansion and belonging to it; dominion, possessions, or estate. **Eminent Domain**, the right of a State to take any one's property, even against his will, by paying him for it. Were it not for this right, railroad building would be impossible in some cases.

DONATE.—To voluntarily transfer the title to a thing, without any consideration, as a free gift. **Donee**, one who receives a gift or donation; one on whom a power for execution is conferred.

DOUBLE ENTRY.—A system of keeping accounts based upon the fact that whenever one person or thing becomes Dr. some other person or thing becomes Cr. for a like amount. It opens a set of books in equation, each transaction being so recorded as to add equal sums to both sides, and thus keeping the accounts arising from the transactions of a business in perpetual equilibrium.

DOWER.—Usually a life interest of one-third part, which a widow has in the lands and tenements of her husband, for the support of herself. **Dowager**, one who has a jointure; a widow endowed. **Dowry**, property which a woman brings her husband in marriage; called also a portion.

DRAFT.— The number of feet which a ship sinks in the water; a deduction allowed from the gross weight of goods; a written order, signed by one person, ordering another person, to whom it is directed, to pay a certain sum of money, at a certain time, to a third person, or to his order, or to the bearer. **Draw** to make a draft. **Drawback**, the paying back of duties by the government on the exportation of imported goods. **Drawee**, the person on whom the draft or bill is drawn. **Drawer**, the person or party who makes the draft, or who requests that the payment be made. The one to whom the payment is made is the **Payee**.

FORM OF SIGHT DRAFT.

$1000. CINCINNATI, JULY 1, 19....

At sight, pay to....A.H. CONN...., or order.—ONE THOUSAND—Dollars, value received, and charge the same to account of L.T. GOODING.

To C. AMES, BOSTON, MASS.

FORM OF TIME DRAFT.

$105 50/100. CHICAGO, Nov. 21, 19....

Thirty days after date pay to the order of....S.M. MANSFIELDING....—ONE HUNDRED FIVE AND 50/100—Dollars, value received, and charge to the account of B.F. GEOFFREY & CO.

To HENRY COMER & CO., NEW YORK.

FORM OF BANK DRAFT.

$500 3/100. No. 418.

FIRST NATIONAL BANK.

DENVER, COL., OCT. 1, 19...

Pay to the order of...MARTIN STRINGFELLOW.....—FIVE HUNDRED—Dollars. DUPLICATE UNPAID.

M. SCHOFIELD, Cashier.

To MERCHANTS' BANK, ST. PAUL.

ACCEPTED DRAFT.

$150 50/100. NEW YORK, MAY 1, 19...

May 17, 19..2..Cash to Bearer—ONE HUNDRED AND FIFTY—Dollars, and charge to the account of W.H. WHEELER.

To GEO. H. TAYLOR, TERRE HAUTE, IND.

FORM OF DRAFT TICKET.

THE UNION BANK.

ST. LOUIS, MO., FEB. 1, 19...

DRAFTS WANTED.

ON	IN FAVOR OF	AMT.	
N.Y.	Ourselves,	175	65
Chi.	L.S. Dixon,	150	00
N.Y.	Ourselves,	170	00
	Our No. 749 check herewith.	495	65

DRAYAGE.—Charge for hauling or conveying goods; called also cartage.

DRESS GOODS.—Fabrics for the garments of women and children, most commonly those made of mixed materials; as, silk and cotton, silk and worsted, etc.

DRUMMER.—An agent employed by merchants to solicit customers.

DRUNKARDS.—A person while intoxicated has lost the use of his faculties for the time, and therefore any contract that he makes during that time he may refuse to fulfill; but if he adopts it after becoming sober, he can not question it.

DRY GOODS.— A general name for textile fabrics; as, cottons, woolens, silks, laces, etc. **Dry Wines**, those wines having the saccharine matter and the ferment so evenly balanced that no sweetness is perceptible

DUE.—That which is owed. **Due-Bill**, an acknowledgment in writing of a debt due another.—It is not payable to order, nor is it assignable by endorsement. It is subject to all the offsets and equitable rights between the original parties, and action must be brought in the name of the original obligee.

DUE-BILL PAYABLE IN MONEY.

$100. PHILADELPHIA, Feb. 3, 19...

Due...WARREN HASTINGS....for value received,—ONE HUNDRED—Dollars, with interest.

ASA TALMAN.

PAYABLE IN MERCHANDISE.

$40 3/100. BOSTON, JAN. 4, 19...

Due...S.R. JAQUEZ...for value received—FORTY 3/100—Dollars, payable in goods from our store, on demand. PHILIPS & HUNTER.

PAYABLE IN MONEY AND MERCHANDISE.

$70 0/00. ATLANTA, Nov. 7, 19...

Due...EDWARD O. SHARPE...for value received—SEVENTY—Dollars, payable, Forty Dollars in cash, and Thirty Dollars in goods from our store, on demand. WALTON & WHISLER.

I O U.

I O U—FIFTY-FIVE 13/100—Dollars.

R.W. HAMILTON.

DUMB BIDDING.—At auction where the amount which the owner of goods is willing to accept, is written down for the auctioneer's use, and no bid is accepted unless it equals or exceeds this amount.

DUN.— To request the payment, especially to press urgently, of a debt. **Dunnage**, pieces of wood placed in the hold of a vessel, upon which the cargo rests, to preserve it in case of leakage.

DUPLICATE.—A document which is essentially the same as another, and differing from a mere copy in having all the validity of an original; an original instrument repeated.

DURESS.— Any unlawful restraint, compulsion, or fear of imprisonment. It may be either to the person, or to the goods.

DUTIES.— Taxes, tolls, imposts, or customs; excise; any sum of money levied by the government on the importation, exportation, or consumption of goods.—If levied on persons or things, it is called a tax. **Specific Duty**, a specified amount upon each article, yard, ton, etc., without reference to value. **Ad-Valorem Duty**, a certain per cent upon the cost of the goods in the country from which they were imported.

EARLY RISING.—The difference between rising every morning at six and at eight, in the course of forty years, amounts to 29,200 hours, or three years, one hundred twenty-one days, and sixteen hours, which are equal to eight hours a day for exactly ten years. So that by rising at six will be practically the same as if ten years of life were added, wherein we may command eight hours every day for the cultivation of our minds and the dispatch of business.

EARN.— In marine insurance the premium is said to be earned if the vessel or the goods are upon the sea during any of the time mentioned in the policy. If the premium is not earned, it must be refunded if it has been paid. **Earnest**, an advance in payment made by the purchaser of goods to bind

the seller to the agreement.

EASEMENT.—A liberty, privilege, or advantage, which the owner of one parcel of land has to use the land of another without profit.

EAVES-DROPPERS.—Persons who lurk about dwelling houses, and other places where people meet for private intercourse, to hear any discourse, and thereupon to frame slanderous tales.

ECCLESIASTICAL CORPORATION.—A corporation whose members are entirely spiritual persons, and is established for the advancement of religion, and perpetuating the rights of the church. —Also called Religious Corporation.

EDICT.—A public command or ordinance by a sovereign, forbidding or commanding something.

EJECTMENT.—A species of mixed action whereby a person may recover possession of real property, together with damages, while unlawfully detained by another.

ELEMENT.—A fundamental or essential ingredient; one of the simplest parts or principles of which anything consists.

ELEEMOSYNARY.—Relating to charity, alms, or almsgiving. **Eleemosynary Corporation**, a corporate body instituted for the perpetual distribution of the free alms or bounty of the founder of it, to such class of persons as he has directed.

EMBARGO.—An edict or order of the government issued in time of war, prohibiting vessels or goods from leaving port until further orders.

EAGLE.—A gold coin of the United States of the value of ten dollars. **Easy**, not pressed for money. **Effects**, available funds; or movable property.

ELL.—An English measure of length, equal to 1¼ yards; the Scotch ell is 1³⁷⁄₁₀₀ yards.

EMBARK.—To proceed on board a vessel; to engage in any business.

EMBEZZLEMENT.—The act of fraudulently appropriating to himself, by an employe or clerk, money or goods entrusted to his charge.

EMBLEMENTS.—The growing crops, or profits of a crop, arising from a tenant's own labor, and which he has the right to remove after his tenancy has expired. (See Away-going Crops).

EMBRACERY.—An attempt to corrupt a jury, court, etc., inducing them to favor one party in a trial, by promises, entreaties, threats, money, etc.

EMIGRATION.—Free intercourse, both for travelers and immigrants is granted by all civilized nations, and it may be expected that, as the commerce of the world increases, and travel becomes more and more general, it will in time become established as a strict right. In general, citizens have a right to leave their country whenever they choose.

EMPLOYER AND EMPLOYE.—An agreement to work for another, is a very common kind of contract in business life. The two general classes are (1) to do some particular thing, and (2) to do whatever the employer may direct.

EMPLOYER'S AGREEMENT.

The most important part of the employer's agreement is to pay for the services, and it is either express or implied. A fixed compensation beforehand controls; but where nothing is said about whether the services will be paid for, or how much will be paid, nevertheless such a contract is always implied. When services are requested there is always an implied contract to pay what they are worth, i.e., the usual amount paid for such services elsewhere. Unless there is a special agreement for payment in advance, the person employed is entitled to no pay until the whole service has been rendered.

EMPLOYE'S AGREEMENT.

The employé must fulfill his agreement, but if anything else is asked of him he need not do it. It is an implied part of every agreement to render services, that the work will be done with ordinary skill, care, and diligence. If the person employed fails to carry out his contract in any respect, he is entitled to no compensation no matter how much he has done.

EMPORIUM.—A center of trade, especially a city or town having an extensive commerce.

ENCROACH.—To unlawfully enter, step by step, or by stealth, upon the rights and possessions of another.

ENDORSE.—To transfer by writing one's name on the back, as on notes, drafts, etc.; to guarantee payment. **Endorsee**, the person in whose favor an endorsement is made. **Endorser**, one who writes his name on the back of a note, etc., thus becoming responsible for its payment.

FORMS OF ENDORSEMENT.

IN BLANK.	IN FULL.	GENERAL.
John Doe.	Pay Richard Roe, or order. John Doe.	Pay Richard Roe. John Doe.

RESTRICTIVE.	QUALIFIED.	CONDITIONAL.
Pay Richard Roe only. John Doe.	Pay Richard Roe, or order, without recourse. John Doe.	Pay Richard Roe, or order, unless payment is forbidden before maturity. John Doe.

RESPONSIBILITY OF ENDORSERS.

In the following form each party is responsible to the one below him; i.e., if Nos. 1 pay the obligation, all the others are released; if Nos. 1 fail to pay, then Nos. 2 are next responsible, who, if they pay, Nos. 3, 4, etc., are released, but Nos. 1 are responsible to Nos. 2; etc.

IN A NOTE.	IN AN ACCEPTED DRAFT.	IN A CERTIFIED CHECK.	IN AN UNACCEPTED DRAFT, OR UNCERTIFIED CHECK.
1. Maker.	1. Acceptor.	1. The bank.	1. Drawer.
2. 1st Indorser.	2. Drawer.	2. 1st Indorser.	2. 1st Indorser.
3. 2nd "	3. 1st Indorser.	3. 2nd "	3. 2nd "
4. 3rd "	4. 2nd "	4. 3rd "	4. 3rd "
Etc.	Etc.	Etc.	Etc.

SIGNIFICATION OF ENDORSEMENTS.

In blank.... A blank endorsement makes a note transferable by mere delivery only, but the endorser is made liable for its payment.

In full.... An endorsement in full prevents a subsequent holder from recovering against the antecedent parties, unless he can deduce a regular title to the bill from the person whose name stands as first endorser. It also has the same effect as an endorsement in blank.

General.... A general endorsement entitles the holder of a note to the money, and in case of default, to look to the endorser for payment. It has been held that in a general endorsement the holder has a right to fill in the words "or order," if he saw fit, making it a full endorsement.

Restrictive.... The holder of a note has power to limit its payment to whom he pleases. A restrictive endorsement will not be presumed from equivocal language, and it always tends to impair the negotiability of a note or bill.

Qualified.... A qualified endorsement does not affect the negotiability of a note, but allows the holder to transfer it without being held liable for its payment.

Conditional.... The conditional endorsement is explained by its wording, and is used only in special cases. One who afterwards accepts it is bound by the condition.

By an Agent.... An agent should endorse either as agent, or write the name of his principal; otherwise the endorsement is inoperative. If compelled to endorse notes or bills over to his principal, he should use a restrictive form, to avoid responsibility. (See Guaranty).

For Money Paid.... When a partial payment is made on a note, it should be endorsed thus:

$100.00. Received on the within note One Hundred Dollars.
Sept. 10, 19.... GEORGE LAMB.

For Collection....
Pay to Merchants' National Bank, St. Paul, for collection.
SAMUEL PAUL.

ENGROSS.—To write out, or copy, in a large, fair hand, on paper or parchment; to buy up large quantities of goods of any kind in order to control the market.

ENJOIN.—To command, require, or prohibit by a judicial order or decree.

ENVOY.—A person sent by a sovereign or government, to negotiate a treaty or transact other business, with a foreign sovereign or government.—If vested with full power he is called an envoy plenipotentiary.

ENTREPOT.—A storeroom for the deposit of goods; a bonded warehouse; a free port.

ENTRY.—The lodgment of a ship's papers in the custom house on arrival at a port of entry; the record of any business transaction.

EQUIPMENTS.—A collective designation for the necessaries of an expedition or voyage.

EQUITY.—A branch of remedial justice, by and through which relief is afforded to suitors in the courts of equity. **Equitable Assets**, assets which are reached only through a court of equity. **Equitable Estate**, a right or interest in land which requires a court of equity to make available. **Equitable Mortgage**, a claim or lien upon real estate, recognized in a court of equity as security for money paid; as a deposit of the title-deeds of an estate with the lender of the money. It has the same effect as a mortgage. **Equity of Redemption**, the right of a mortgagor to redeem an estate, after it has been forfeited at law by the non-payment, at the time appointed, of the money secured by the mortgage, to be paid by paying the amount of the debt, interests and costs.

ERROR.—A blunder or mistake; a legal writ which carries the suit for redress to another court. **Errors Excepted**, a reservation made in all cases in furnishing mercantile accounts.

ESCHEAT.—Lands or tenements which fall or revert to the lord or superior because of the failure of heirs, or by forfeiture.

ESCROW.—A deed delivered to a stranger, to be the deed of a party making it, upon a future condition, when a certain thing is performed, and then to be delivered to the party to whom made.

ESPLEES.—The productions of land; as, the hay of the meadows, herbage of pasture, corn of the arable, rents, etc.

ESTATE.—The degree, quantity, nature and extent of interest which a person has in real property; the circumstances or conditions in which the owner stands with regard to his property. **Estate in Common**, a joint estate held by two or more persons, and having several distinct titles. **Estate in Coparcenery**, an estate held by several persons as one heir. **Estate in Dower**, the life estate held by a widow in one-third of the land and tenements of which her husband was seized at any time during coverture, and which estate might have been inherited by her issue if she had any. **Estate in Expectancy**, an estate in which the right of possession and enjoyment is postponed to a future time. **Estate in Fee (or Fee-Simple)**, an unqualified ownership of lands which a man and his heirs have without limit or end. **Estate in Fee-Tail**, an estate which will be inherited by certain classes of heirs. **Estate of Inheritance**, any freehold estate, except that for life, which may descend to heirs. **Estate of Joint Tenancy**, conveyance of land by purchase to two or more persons jointly, either in fee, for life, or for years. **Estate for Life**, an estate which one has a right to use during his life, or the life of some other person. **Estate in Remainder**, an expectant estate in lands, tenements, or rents, to be enjoyed by some third party, after the expiration of an intervening estate. **Estate in Reversion**, an expectant estate arising by operation of law; the residue of an estate which returns to the grantor after the determination of some particular estate granted. **Estate in Severalty**, lands or tenements held by a person in his own exclusive right. **Estate at Sufferance**, the lowest estate that can exist. It arises where a tenant continues his possession after his tenancy has expired. **Estate at Will**, an estate depending upon the joint wills of the parties, and not limited by time. **Estate for Years**, an estate held for a definite time, and may be for any length of time; it is also called term for years. **Future Estate**, the interest which a person has in certain land to whom it is to go upon the death of a life tenant, or upon some other contingency. Thus the heirs of a husband have a future estate in land set apart to a widow for her dower.

ESTOPPEL.—A legal impediment to a right of action arising from a person's own act, or where he is precluded from speaking against his own deed.

ESTOVERS.—Supply of needful wood, for repairs, fuel, etc., a legal guaranty to tenants from their demised premises.

ESTRAYS.—Animals, whose owners are not known, found wandering around.

EVASION.—A shift or subterfuge to set aside the truth, or escape the punishment of the law.

EVICTION.—The recovery of lands or tenement from another's possession by legal proceedings.—**A landlord** has a right to evict when the tenancy expires, and also whenever the tenant does, or omits to do, anything for which the lease provides, the landlord shall have the right to "re-enter." If a landlord deprives the tenant of the property without right, it relieves the latter from paying rent. When the landlord has a right to evict, he may do it himself if he can accomplish it without force—not otherwise; resort must be had to the courts. If some third party, having a better right to the property than the landlord, should deprive the tenant of it, that would also relieve him from paying rent. This often occurs in mortgaged property.

EVIDENCE.—Proof or testimony, either written or unwritten, of facts at issue between parties.

EXACTION.—The act of demanding or taking with authority; a wrong committed by an officer, or one pretending to have authority, by taking a larger fee than the law allows.

EXAMINER.—A custom-house officer who examines imported merchandise and compares the articles with the invoices; an officer in chancery to take depositions of unwilling witnesses, where notice of motion for decree has been given, or where issue is joined; an officer in the Patent Office who inspects patents and records.

EXCEPTION.—The act of excluding or leaving out a certain number; a stop or stay to an action.

EXCHANGE.—The giving one value for another; the process of remitting money values by means of bills and drafts; the discount or premium arising from the purchase or sale of different classes of paper; the place where merchants of a city meet to transact busines. **Exchange Broker**, one who negotiates foreign bills of exchange.

EXCISE.—A tax or duty levied on articles produced and consumed in the same country, as on wine, whisky, etc.

EXECUTE.—To carry into complete effect; to put to death by form of law. **Executed**, when applied to contracts, signifies already done, accomplished, or performed. **Execution**, a legal warrant or order to carry out the judgment or sentence of the court. **Executor**, a person appointed by a testator to carry out the provisions and directions of his will. **Executory**, having authority to put the laws in force; yet to be performed. **Executory Contract**, a contract to be performed in the future, as to build a house in six months. **Executory Devise**, A gift of a future interest; a devise depending on some contingency which must happen before it can vest, instead of at the death of the testator. **Executory Estate**, an estate which depends, for its enjoyment, upon some contingency or subsequent event. **Executory Trust**, an incomplete trust, requiring a further act to give it its full force. **Executory Uses**, springing uses which confer a legal title, and answer to an executory devise, depending upon a future contingency.

EXEMPLARY DAMAGES.—Damages allowed as a punishment for torts committed with fraud, malice, or deliberate violence; serving as a warning to others.

EXEMPTION.—Freedom from any service, charge, appearance, etc; **the** right of a debtor to retain a portion of his property from execution. **Exempts**, persons who are by law excused from certain duties imposed upon others.

EXHIBIT.—A written statement showing the condition of the affairs of a merchant; **a** transcript of ledger balances.

EXPATRIATION.—Banishment from one's native country, voluntary or otherwise; **the** forsaking of one's country with the intention of becoming a citizen of another.

EXPENSE.— This is a title under which an account of the expenses incurred in conducting a business is kept; such as freight, store rent, clerk hire, fuel, lights, etc. It includes all expenses connected with a business that do not more properly belong to some other account. **If** it be desired to show results in detail, separate accounts must be kept with Salaries, Freight, Rent, etc. **Debit** Expense with any outlay for carrying on the business. **Credit** Expense with returns on anything previously debited to it.

FORM OF EXPENSE ACCOUNT.

Dr. EXPENSE. Cr.

Jan.	1	For Rent,	100	00	Jan.	30	Sold Office Desk,	40	00
"	5	" Office Desk,	50	00	"	31	" Loss & Gain,	220	00
"	10	" " Books,	10	00					
"	17	" Clerk Hire,	100	00					
			260	00				260	00

EXPERTS.—Persons skilled in a science, an art, or in a profession; persons selected by parties in a cause, to give evidence on those subjects in which they are particularly skilled.

EXPORT.—To carry or send goods or produce out of a country in the course of trade. **Export Duty**, a duty imposed by some governments on the exportation of certain kinds of merchandise. **Exporter**, one who sends goods to a foreign country. **Exports**, goods and produce exported or sent out of a country.

EXPRESS.—To transmit more rapidly than by ordinary means; **a** regular and quick conveyance for packages, light freight, etc. **Express Company**, an association, coming in the class of Common Carriers, whose business is to transport from place to place, the goods, etc., of any one when offered them. **Express Contract**, an agreement definitely and formally expressed in words. It may be either oral or written. Opposite of implied contract.

EXTENT.—A legal warrant by which the body, lands, and goods of a debtor may all be taken at once to satisfy a claim. **Extension**, the extending of the various items of a bill to the final dollar and cent column; **an** agreement on the part of a creditor to allow further time for the payment of a debt. **Extenuation**, a circumstance which renders a crime or fault less heinous than it would be without it.

EXTORTION.—To gain from violence, threats, or injustice; **the** unlawful taking, by an officer, under color of his office, of money or anything of value not due him.

EXTRADITION.—The surrender by one government to another, of any person who has fled from justice. When applied to States of the U.S. it is called a requisition.

EYE WITNESS.—One who sees a thing done.

FACE OF NOTE.—The amount of money expressed in writing in the body of a note or bill.

FAC-SIMILE.—An accurate imitation of an original; **an** exact copy or likeness.

FACTOR.—An agent employed to sell goods or merchandise consigned or delivered to him, by or for his principal, for a compensation, commonly called factorage or commission. **Factorage**, the commission allowed to factors or commission merchants by those who employ them. **Facture**, an invoice or bill of parcels.

FAIL.—To become bankrupt or insolvent. **Failure**, inability to meet mercantile engagements; suspension of payment. Used mainly of persons in commercial life. **When** a firm fails, every partner is liable for the whole indebtedness of the firm; i.e., not only the common, but also the private property of each partner may be taken to satisfy the debts of the firm. In such a case, if proper legal steps be taken, the private property of each partner may be reserved to pay his private debts, and the partnership property set apart to pay the partnership debts. When either class has been wholly paid, the surplus property is applied to the other class.

FAIR.—Honorable; **a** grade above middling; **a** market held at stated periods.

FALL.—Ruin; **a** tumble; decrease in price or value. **Falling Market**, a continuous decline in the price of goods or merchandise. **Falling Off**, a diminution of sales.

FALSE ACTION.—An action the words of which writ are false. **False Imprisonment**, any illegal restraining of personal liberty; **the** arrest or detention of a person without warrant, or by an illegal warrant, or by a legal warrant issued at an unlawful time. **False Pretenses**, deceit or misrepresentations; statements made with a fraudulent design to obtain goods on credit. **Falsify**, to make something appear to be true which is really false.

FAMILY EXPENSE.—An account under this title may be kept (See Expense for form), and made Dr. for every thing bought for family use, including the market price of such products of the farm as might be used by the family. Where a family expense account is kept, the books would show the profits from farming, the cost of living, and the net increase.

FARM ACCOUNTS.—These may be kept in simple Ledger Accounts, the same as with persons or Cash, by making the Farm, or any portion of it with which an account is kept, Dr. for what it costs, and Cr. for what it produces. If there be an excess of the Cr. side over its Dr. side, it will represent the new gain for the time; if the excess be on the Dr. side, it will represent new loss. If desired, accounts may be kept thus with one or any number of fields, or departments of farm work, for one year or for a single crop, as with a Wheat-field, a Corn-field, a Cattle Account, etc.

FARM RECORD.—A record giving an account of one's farming operations, including the cost of labor employed in preparing fields for crops; the cost of seed, and of planting and sowing; the cost of protecting and cultivating growing crops, and of harvesting them; the price they bring when sold, or their worth as used; the kind, quantity, and cost of fertilizers employed; the effect of the rotation of crops; etc., etc. Such a record would be of great value in enabling farmers to profit most largely by their individual or joint experience.

FARM REGISTER.—A Time Book for labor performed. It is kept on the general plan of the Pay Roll or Time Book. (See these for form). Use the left column for the titles of speculative accounts, or branches of farming, as Wheat-field, Live Stock, Dairy, Orchard, etc., and enter regularly the number of days' work expended upon each of these branches. Two lines might be left for each title, the upper for day's work of men, and the lower for team, which would be at different rates, and the amount of the whole extended at the right.

FANCY STOCKS.—A term usually applied to the stocks of joint companies, which is subject to fluctuation in price.

FARTHING.—A copper coin of England, in value equal to about one-half cent.

FAUTORS.—Supporters of others; persons who aid or support another in the commission of a crime; **an** abetor.

FAVOR.—Support, patronage, or goodwill; **to** assist, befriend, or afford advantages for success.

FEALTY.—The special oath of fidelity which a tenant owes to his landlord.

FEASANCE.—The act of doing or making anything.

BUSINESS FORMS.

FEE.—Price paid for services—generally said of professional men; estate, either in fee-simple or fee-tail; that right which a vassal has in lands, to use the same and take the profits thereof to himself and his heirs, rendering to his lord due services therefor. **Fee-Simple**, an estate in lands or tenements of which the owner has the fullest power of disposing which the law allows. **Fee-Tail**, an estate which can be inherited only by a certain class of heirs; a limited inheritance.

FEIGNED ACTION.—The appearance of aiming at or offering when something quite different is intended; such action, although the words of the writ are true, yet the plaintiff has no actual cause of action. **Feigned Issue**, a proceeding brought by the consent of the parties, or by a court, to determine before a jury some disputed right or facts, thus saving both time and expense.

FELON.—One convicted for having committed a crime. **Felonious Homicide**, the killing of a person without justification or excuse. **Felony**, every species of crime which occasions the forfeiture of land and goods; a crime punishable by imprisonment in a State prison.

FEOFFMENT.—A conveyance or gift in fee of corporeal hereditaments accompanied by actual delivery of possession. **Feoffment to Uses**, the conveyance of land to a person for the use of a third party.

FERRY.—The right, granted by act of legislature, to maintain a vessel for carrying passengers or freight across a river, bay, etc.

FEUD.—The right to use the lands of a lord, by rendering services therefor, the property in the land still remaining in the lord. **Feudal Law (or System)**, a system of tenures common in Western Europe during the Middle Ages (from about 600 A.D. to 1500), by which real estate was held, and which arose from the peculiar political conditions of those countries.

FICTITIOUS ACTION.—An action brought on a pretended controversy, in order to get the opinion of the court on a point of law. **Fictitious Quotations**, in the stock exchange, common devices of the bucket shops (warts or excrescences which have grown out upon the commercial body in large cities), which are usually the sending of false telegrams from the main source of information, or furnishing the telegraph operator with the figures he is to post up instead of those really telegraphed.

FIEF.—Land held of a superior on condition of military service; a fee, feod, or feud.

FILIATION.—The relation of a child to a father; the act of ascribing a child to a father.

FILIBUSTER.—One who unites with others in attacking a foreign country in time of peace for plunder or conquest.

FINAL DECREE.—A final or conclusive sentence of the court, terminating all litigation on any one cause. **Final Judgment**, a decision of the court which puts an end to an action, by an award of redress to one party, or discharge of the other, as the case may be.

FINANCIER.—One skilled in money matters; one who has charge of the public revenues.

FIRE INSURANCE.—An indemnity against loss by fire. **Fire Policy**, the authorized document setting forth the nature and extent of the property insured against fire, the sum to be paid under it in the event of fire, and the annual premium payable by insurer.

FORM OF FIRE POLICY.

No. 475. $5000.

THE GERMAN INSURANCE COMPANY, OF INDIANAPOLIS, IND.

In Consideration of the representations of the assured, of the conditions, limitations and requirements of this Policy, hereinafter mentioned and of .....Forty-five.....Dollars, does insure....G. H. Crawford.....for....One Year.....from the...First.....day of .....August.....19—, at 12 o'clock at noon, to the.....First.....day of.....August.....19—, at 12 o'clock at noon, to an amount not exceeding....Five Thousand.....Dollars, against loss or damage by Fire to the following specified and located property only, to-wit: .....On certain books, bound and unbound, engravings, steel and copper plates, and other merchandise now contained in the brick building No. 14 Olive Street, Terre Haute, Ind.....

And the said German Insurance Company hereby agrees to indemnify and make good unto the said assured all such immediate loss or damage, not exceeding in amount the sum or sums insured as above specified, nor the interest of the insured in the property, except as herein provided, as shall happen by fire to the property so specified; the amount of loss or damage to be estimated according to the actual cash value of the property at the time of the fire, and to be paid in sixty days after the loss shall have been ascertained, in accordance with the terms and conditions of this Policy, and satisfactory proof of the same required by this Company shall have been made by the insured, and received at the principal office of this Company in Indianapolis, Ind., unless the property be replaced or this Company shall have given notice of its intention to rebuild or repair the damaged property.

(Here follow ordinarily a large number of minor clauses).

In witness whereof, The German Insurance Company, of Indianapolis, Ind., has caused these presents to be signed by its President, and attested by its Secretary, in Indianapolis, Ind., but the same shall not be binding until countersigned by.....Geo. H. Taylor.....Agent for the Company at.....Terre Haute, Ind.

Attested: Chas. Krewson, *Secretary.* } M. S. Keene, *President.* Geo. H. Taylor, *Agent.*

Countersigned this....4th....day of...Aug. ....19....

FORM OF ASSIGNMENT.

For Value Received.....hereby transfer, and set over unto..... all.....right, title and interest in this Policy of Insurance, and all benefit and advantage to be derived therefrom.

Witness.....hand this..... day of.....19.....

.....

Approved at.....Agency, this.....day of.....19....

.....Agent.

FORM OF RECEIPT FOR LOSS.

$.....19....

Received of the German Insurance Company, of Indianapolis, Ind., by the hands of.....Dollars, in full satisfaction for all claims and demands whatsoever for Loss and Damage by fire, to property insured by said Company under this Policy, and which property was destroyed by fire on the.....day of .....19....; in consideration where of this Policy is hereby cancelled and surrendered to said Insurance Company.

.....

FINDING.—The verdict or result of the deliberations of a jury or judicial body.

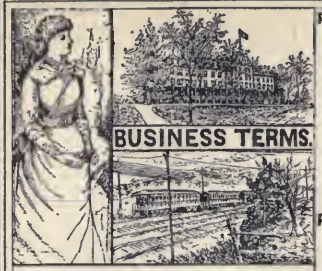
FINE.—A sum paid as a penalty, as a punishment, or as the price of exemption. **Fine Force**, the forcing of a person to do that which he can in nowise help.

FIRM.—The name or title under which several persons or partners transact business. **Firm Name**, this generally consists of the names of the persons composing the Firm, or of one or more of them and Co.; as, Smith & Brown, or Smith, Brown & Co., as the case may be. **The** word STOCK is employed to represent the firm in its own books of account. The Stock Account is Cr. for the assets of the firm, and Dr. for its liabilities.

FIRST CLASS.—Of the highest excellence. **First-Hand**, obtained directly from the manufacturer or maker; new, as opposed to second-hand

FISCAL.—Pertaining to the public revenue or treasury. **Fiscal Year**, the financial year as reckoned by the department of finance.

FIVE-FORTIES.—A commercial term applied to bonds issued by the United States, redeemable at the pleasure of the Government after any period not less than five years, and payable at any period not more than forty years from their date; the bonds bear interest at the rate of 6 per cent. per annum. **Five Twenties**, United States bonds redeemable at the pleasure of the Government after five years from date, and payable in twenty years; they bear interest at 6%.



FIXTURES.—That part of the furnishing of a store, such as chattels or articles of a personal nature affixed to real estate, and which may not be removed by the party who affixed them.

FLAT.—Inactive, depressed, or dull of sale; the flat value of bonds or stocks is their value without interest.

FLEET.—A number of ships in company; a navy or squadron. **Flodenmark**, high-water mark; the mark which the sea at highest mark makes upon the shore. **Flotsam**, the name of goods floating on the sea.

FOOLSCAP.—The name of a folio writing paper, about 13½ by 16½ inches.

FLYER.—A small side operation, not employing one's whole capital.

FOCAL DATE.—A date to reckon from, adopted for convenience in computing averages. It is chiefly used in determining the average date of bills, or their average term of credit. The earliest or the latest date of the several bills averaged is usually employed, the result being the same whatever focal date is taken.

FOLIO.—A page in an account book; any book of the largest size, formed by once doubling a sheet of paper; in law writing, a page containing a certain number of words, ranging from 72 to 90.

FOOTING.—The expressed amount of a column or columns of figures; the act of adding columns of figures.

FORCE (IN CONTRACTS).—Assent, given freely and with full knowledge, is necessary to a contract. If it is obtained by means of force, as through threats of any kind, the party upon whom the force is practiced can claim there is no contract if he wishes to. The other one cannot, for it is a rule in law that one cannot take advantage of his own wrong-doing. **Forced Sales**, sales of goods made under necessity or compulsion. **Forcing Quotations**, keeping up the price of a stock, and preventing its falling out of sight, usually by making a small sale.

FORECLOSURE.—The legal process by which a mortgagor is compelled to redeem his pledge or property, or lose it; an original bill in chancery by a mortgagee, for the purpose of shutting out forever the mortgagor from the equity of redemption.

FOREIGN ATTACHMENT.—A legal process by which the goods of absent debtors are seized, in order to compel an appearance, or in default, to pay the claim of the plaintiff. **Foreign Bill of Exchange**, a bill drawn by a person residing in one country or State upon a person residing in another country or State. (See under Bill for form). **Foreigner**, one not a citizen; in the United States, one not born herein, and who still owes allegiance to some foreign country.

FORESTALL.—To buy merchandise on the way to market, before it reaches it, with the intent to sell again at a higher price; to enhance the price of victuals or other provisions, through some device.

FORFEITURE.—Money paid by way of penalty for a crime; the losing of some right, privilege, estate, honor, or office, etc., by some offense, crime, or neglect. Non-performance of a condition may forfeit an estate.

FORGERY.—The crime of making or altering notes, bills of exchange, or other instruments, in order to make them pass as genuine. **Forged Paper**, generally the endorsee obtains a perfect title when paper is transferred before maturity; but if the first endorsement be forged, no title rests in the holder. If the maker's name be forged, the holder has no recourse against him. Negotiable paper is void when the consideration is either contrary to the general principles of common law or is prohibited by statute.

FORNICATION.—The illicit commerce between unmarried persons, or between unmarried and married. Where both parties are married it is called adultery.

FORSWEAR.—To swear falsely, or deny or renounce upon oath. It has not the same meaning as perjury.

FOUND PROPERTY.—The law of finding is that the finder has a clear title against every one but the owner. The proprietor of a hotel or a store has no right to demand property when found on his premises. The law of finding was declared by the King's bench in a case in which the facts were these: A person found a wallet containing a sum of money on the premises of a shopkeeper, and handed it to the proprietor to find the owner. After waiting three years, the owner did not call for the property, and the finder demanded it. Upon being refused, he entered suit, in which it was held that against all the world but the owner the title of the finder is perfect. Receivers of articles found are trustees for the owner or finder, and have no power, in the absence of special statute, to keep an article against the finder, any more than the finder has to retain an article against the owner. (See Lost Property, under Etiquette—in Index).

FRACTIONAL CURRENCY.—Notes issued by the United States Government for the fractions of a dollar.

FRANC.—A silver coin used in France and Belgium, and worth 18⅗ cents.

FRANCHISE.—A privilege or right granted by government to one or more individuals; privilege, right, or liberty. **Franking Privilege**, a privilege of sending certain matter through the mails without payment, as newspapers published and sent to subscribers within the same county.

FRAUD.—Any intentional and successful employment of any cunning, deception, or artifice, used to circumvent, cheat, or deceive another. In contracts fraud may be practiced (1) by one party upon the other to induce him to make the contract, or (2) the contract may be a fraudulent device between two parties to cheat some third party. If the fraud is practiced between two parties, it may be from stating facts known to be false, or by concealing facts known to be true, and which ought to be revealed. The effect is that the dishonest party must carry out his contract, if the other party wishes to treat it as valid; but the party defrauded need not carry out his contract with the party who defrauded him. If the fraud is practiced on a third party, it may be by an agreement between two parties to cheat the third party by an illegal agreement, and wholly void, or by an act entirely legal in itself, such as a debtor transferring his remaining property so that his creditors shall not get it. If an agent should act fraudulently, or deceitfully, he himself is responsible to the third party, and not his principal.

FREDERIC D'OR.—A gold coin of Prussia, valued at about $4.

FREE BOARD.—A strip of land outside the fence, about 2½ feet wide, and which may be claimed by the owner. **Free Goods**, goods which are admitted into a country without the payment of duty. **Freeholder**, one who holds property in his own right, or for life. **Freehold of Inheritance**, that estate or interest in real property which extends beyond the owner's life to his heirs. If not of inheritance, the interest endures only during the owner's life. **Free Trade**, commerce unrestricted by customs duties or traffic regulations. It is the opposite of protection.

FREEDOM OF SPEECH (AND OF THE PRESS).—The liberty to speak and print whatever we choose, provided we do not abuse the right. Congress is forbidden to pass any law abridging them. This is intended to prevent all use of those means which in former times had been used to repress the people, by forbidding them to speak or write on certain subjects unless licensed by the government beforehand. The object of this provision in the Constitution was not to allow one to go unpunished who uttered slander or published libel.

FREEZING OUT. — In the stock exchange, a phrase signifying a cunning device by which the little margin put up by the lamb is jobbed. The commodity falling to a certain price, the trade is declared closed, and the loss charged up against the amateur operator.

FREIGHT. — A term used to express various articles shipped either by land or water; charge made for the carriage of merchandise, the amount of which is generally specified in the bill of lading.

FORM OF FREIGHT NOTICE.

NORTHERN PACIFIC RAILWAY CO.

FREIGHT OFFICE, Cor. M and Pine Sts.

St. Paul, Minn., Oct. 1, 18..

The following consignment to your address is now ready for delivery, and will be put in store at your risk and expense, if not removed within twenty-four hours after service of this notice, this Company being no longer liable as carriers.

STATION FROM.	CAR NO.	CHARGES.
New York.	1273	15 74

DESCRIPTION OF PROPERTY.

2 boxes Dry Goods.

Yours respectfully,

JOHN CUDE, FREIGHT AGENT.

FORM OF FREIGHT RECEIPT.

LAKE ERIE & WESTERN RAILWAY COMPANY.

PERU STATION, JAN. 10, 19....

RECEIVED FROM ... N. WOOD ... IN APPARENT GOOD CONDITION:

MARKED.	DESCRIPTION OF PROPERTY.	WEIGHT.
S.O. & Co. Madison, Ohio.	As described above, contents and value unknown, to be transported by the LAKE ERIE & WESTERN RAILWAY COMPANY, and its connecting lines, to their warehouse at ... MADISON, OHIO, ... ready to be delivered at said warehouse, to the consignee or owner, it being expressly agreed that said property is to be transported upon, etc. There follow a number of conditions and regulations.	4513.
	ALL OILS, MOLASSES, SYRUPS, OR LIQUORS OF ANY KIND, ENTIRELY AT OWNER'S RISK OF LEAKAGE; ALL MACHINERY AND FURNITURE AT OWNER'S RISK OF CHAFING OR BREAKAGE.	
	WEIGHT SUBJECT TO CORRECTION.	

GEORGE WYNN, Agent.

FUGITIVE CRIMINALS. — The officials of one State have no power in another State as officials, but the Constitution provides against the escape of criminals who flee from one State to another. The Governor of the State from which the fugitive has fled, sends a requisition to the Governor of the State in which he is found, demanding his delivery to the first State. This requisition is usually complied with, but there is no way to compel a Governor of any State to deliver up an accused person. If a criminal escape from one Nation into another, there is no strict obligation upon the government to return him; yet there is a provision made for this by treaties, known as extradition treaties.

FULL AGE. — Legally regarded as mature age. At common law it is the age of twenty-one, for both males and females; in the civil law it is twenty-five years; full age is completed on the day preceding the anniversary of birth.

FULL INDORSEMENT. — One in which payment is ordered to be made to a particular person named. (See Endorsement.)

Full Insurance, insurance, the total amount of which, whether by one or several policies, equals the value of the property insured.

FUND. — Money loaned to government for a term of years, on which interest is paid; money appropriated as the foundation of some commercial operation.

Funded, turned into a permanent loan on which an annual interest is paid. **Funding**, the practice of borrowing money to defray the expenses of government.

FUNGIBLES. — Things that are consumed by their use, being loaned for that purpose, such as corn, wine, or money.

FUTURE ESTATE. — An estate the enjoyment of which is limited to commence at a future day, such as remainders and reversions. **Futures**, **Dealing in**, a system of stock exchange gambling, which is virtually betting on the price of a commodity at a future day.

GAOL DELIVERY. — The removal of all the persons confined in a gaol for the purpose of trying them, and discharging those whom the grand jury fail to indict. **Gaol Liberties**, certain defined limits, considered as being a part of the prison, and within which prisoners are allowed to go at large, upon giving security for their return. **Gaoler**, the legally appointed officer who has the custody of the place where prisoners are kept.

GARBLES. — The dust, soil, and other impurities, which have been separated from good spices, drugs, etc.

GARNISH. — A name formerly given to an unauthorized prison-fee in England, demanded by prisoners from new-comers; to warn or give notice. **Garnishee**, a process of attachment; a person in whose hands the property of another is attached till the claims of a third party be satisfied. **Garnishment**, warning, or legal notice, given to any one for his appearance, in a cause in which he is not interested, for the purpose of giving information on a subject.

GAVEL-KIND. — A custom in some parts of England, as in Kent, by which land descended to all the sons in equal proportion; if no sons, to the daughters.

GAUGING. — The art or process of measuring the contents of casks or other receptacles.

GENEALOGY. — History of the descent of a person or family, showing how they are connected together.

GENERAL ASSIGNMENT. — A transfer by a failing debtor of all his remaining property to some one for the purpose of having it distributed among his creditors. If it were not for an assignment, any creditor may sue, and on obtaining judgment have the sheriff seize any of the property and satisfy his own claim fully out of it, without regard to any other creditor, thus causing it to be a race between the creditors. An assignment stops this. **General Average**, a contribution to be paid by the different owners of a vessel and cargo to one of their number, when his property has been voluntarily and successfully sacrificed to save the rest. **General Issue**, a plea which denies or traverses at once the whole indictment or declaration, without offering any special matter to evade it. **General Order Store**, a government bonded warehouse to which, under a "General Order," all foreign merchandise is sent that is not claimed by the owner or consignee within a certain number of hours or days after the arrival of a vessel in port.

GENERATION. — The interval of time which elapses between the birth of a father and the birth of his son, and is consequently of uncertain length; it depending on the standard of human life, and whether the generations are reckoned by eldest, middle, or youngest sons. Thirty-three years have usually been allowed as the mean length of a generation, or three generations for every hundred years. In compiling pedigrees, great attention is necessary to the number of generations in any given period, as they form a guide to the probability of persons having sprung from any particular individual.

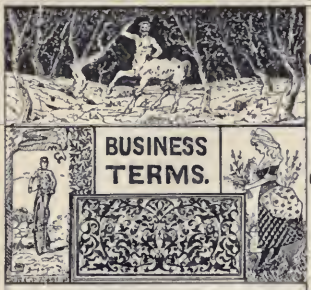
GERMAN. — As regards genealogy, it means whole or entire; thus brothers having the same father and mother are "brothers-german;" children of brothers and sisters are "cousins-german."

GERRYMANDER. — This term signifies the division of a State into districts for the choice of representatives, in an unnatural and unfair way, so as to give one party the advantage. It came into use in Massachusetts in 1811, when the Democrats thus took advantage of the Federalists. Elbridge Gerry was the instigator of this plan, which was therefore called Gerrymandering.

GIFT. — A voluntary conveyance of either real or personal property, without consideration. Real property can only be thus conveyed by deed, and personal property by delivery of possession.

GIST. — The main point of a question, it being the cause or foundation upon which an action lies, and without which it cannot be maintained.

GIVEN NAME. — The first name is called the given name in contradistinction to the surname, which is inherited. It



is thought to be a relic of Puritan scrupulousness: the Pilgrim Fathers objecting to apply the term Christian to any person not 'converted,' which of course an unconscious infant could not be. Jews, in courts of justice, are often asked 'What is your Christian name?' The proper question would be, 'What is your personal name?'

GO-BETWEEN.—An intermediate person who acts as agent for both parties.

GOLD COIN.—Coin made of gold alloyed with copper or silver to render it sufficiently hard. **Goldsmiths' Notes,** bankers' notes; so named from the circumstance of goldsmiths and bankers formerly being joined in the same trade.

GOODS.—Household furniture, wares, and merchandise of whatever kind.

GOOD WILL.—The benefits, reputation, and patronage, which arise from the custom of any trade or business, beyond the mere stock and capital, and which is supposed to inhere in it whoever may be its proprietor. **It** is often as much a matter of purchase and sale as any other commodity. Its value depends upon the probability that force of habit or other cause will induce its former patrons to continue their patronage.

GOVERNMENT.—The principle or system under which a State or nation is ruled; **the** ruling power in a State or nation. **The** principal forms of government are as follows: PATRIARCHAL, the earliest form of which we have any knowledge. It is a kind of tribe or family government. Abraham was a patriarchal ruler. THEOCRACY, a government by those who are also religious rulers; as the government of the Hebrews just after their departure from Egypt. MONARCHY, a government in which the chief power is in the hands of one person, called a king, emperor, or prince. **It** may be either absolute or limited. DESPOTISM, a name sometimes applied to an absolute monarchy, in which the monarch has entire control over his subjects. ARISTOCRACY, a form of government in which the power is exercised by a privileged order of men, distinguished by their rank and wealth. DEMOCRACY, a government by the people. In such a form of government the great body of citizens meet in one assembly to make and execute the laws. REPUBLIC, that kind of democracy in which the power to enact and execute the laws is exercised by representatives, who are persons elected by the people to act for them.

GOVERNOR.—The chief executive officer of a State. The Governor is elected by direct vote of the people, for terms varying from two to four years in different States; but in a few States the term is only one year. **Governor General,** a governor who has lieutenant or deputy governors under him.

GRACE.—In the reign of Henry II., the day first mentioned in each term was called essoign day, because the court then took the essoigns, or excuses, of those who did not appear according to the summons of the writs; but as by custom, traced to the Germans of the age of Tacitus, three days of grace were allowed to every defendant within which to appear, the court not sitting for the transaction of business until the fourth day after that time. (See Days of Grace).

GRAIN.—The collective name for all kinds of cereals; **the** smallest weight, so named because supposed of equal weight with a grain of corn (wheat).

GRAND ASSIZE.—A jury trial introduced by Henry II., giving the tenant or defendant, in a writ of right, the alternative of a trial by battel, or by his peers. **Grand Days,** those days in the terms, which are solemnly kept in the inns and court of chancery. **Grand Jury,** a jury composed of not less than twelve, nor more than twenty-four men, returned by the sheriff of every county to every session of the peace, oyer and terminer, and general gaol delivery, and to whom indictments are preferred, and which must be found by them. (See Indictment). **Grand Larceny,** the stealing of goods or property above a certain amount in value, and is a state-prison offense. The amount varies in the different States.

GRANT.—A term applicable to all transfers of real estate.

GRATUITOUS.—Given without an equivalent or consideration, claim or merit. **Gratuitous Services,** these give no claim to compensation. There is no implied contract, because the services were not requested. Yet if the benefit of anything gratuitously done is retained when it could have been refused, there arises an implied contract to pay.

GREENBACKS.—A term applied to bills originally issued as money by the United States Government during the Rebellion, 1861-5, the backs of which are printed with green ink.

GROCER.—One who deals in coffee, tea, sugar, spices, and various other commodities. **Groceries,** a general name for household articles, except meats and vegetables, as butter, salt, cheese, tea, coffee, spices, sugar, etc.

GROSS.—Twelve dozen; **the** great gross is 12 times 12 dozen. **Gross Average,** that average which falls on the ship, cargo, and freight, as distinguished from particular average. **Gross Negligence,** that degree of negligence and omission of care which even thoughtless and inattentive men never fail to take of their own property. **Gross Weight,** the total weight of goods and boxes, bags or chests, in which they are packed.

GROUND RENT.—An annual payment made to another for the privilege of building on his land.

GUARANTEE.—He to whom a guaranty is made; **an** engagement to see that certain stipulations are performed, as the payment of a debt, in case of the failure of another person, who is, in the first instance, liable for such payment or performance. **Guarantor,** one who makes a guaranty, or engages to secure another in any right or possession. **Guaranty,** an assurance made by a second party that his principal will perform some specific act. It must be (1) in writing, and upon sufficient consideration; (2) where the principal is an infant (minor) he is bound, though the contract with the infant is voidable; (3) the principal parties must not depart in any material matter from their contract without the consent of the surety, else he will be no longer bound; (4) an extension of the time of credit beyond the date of maturity releases the surety. **Guaranty Commission,** the commission paid to a commission merchant who guarantees to his principal the payment of the money for which the goods may be sold.

FORM OF GENERAL GUARANTY.

I hereby guarantee payment to any person who shall accept and retain this instrument as a guaranty, for all goods which he may from time to time supply to....JOHN DOE....not exceeding at any time the amount of ....ONE THOUSAND.... Dollars. This to be a continuing guaranty till specially revoked.

....MAY 13, 19.... ....RICHARD ROE....

GUARANTY OF A NOTE.

For value received, I guarantee the due payment of a promissory note, dated....OCT. 1, 18.... whereby....JOHN LAUDIO....promises to pay....LEWIS S. BOZELL....One Hundred Dollars in four months.

ATLANTA,..FEB. 2,...19....

...HENRY MARTIN....

Form to be Indorsed on a Note.

For value received, I guarantee the payment of the within written note.

(Date). (Signature).

EXTENSION OF TIME.

In consideration that....A. C. KING..... gives to....DICK STANNARD....additional time to the extent of two months, for payment of the indebtedness due him from said....DICK STANNARD....guaranteed by me, I hereby continue my guaranty for due payment thereof.

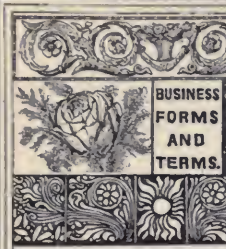
....APRIL 5,...19.... ....PETER LAUDIO....

GUARANTY OF FIDELITY.

In consideration of the performance of the agreement specified in the within by...M....with my son....A....I do hereby bind myself to said...M....for the true and faithful observation and performance of all the matters and things by said...A....agreed and covenanted therein, and that he shall well and truly serve said...M....

Witness my hand this...2nd....day of...Feb....19....

....H. K....



GUARDIAN.—When a minor has property of his own, and is unable to take the management of it, a guardian is appointed for him for that purpose. The guardian may use the property for the support and education of the child (called his ward) during its minority. He may sell the personal property, but the real estate cannot be sold without permission from the court. At twenty-one the guardian must transfer all the property to his ward, and render an account of all his transactions. He is responsible for any loss caused by his wrong or negligence.

GUILD.—An association, company, or brotherhood organized for commercial purposes; a religious body, organized for charitable purposes, or for assistance in parish work.

GUILT.—The crime which renders offenders liable to punishment. The law presumes every one innocent until proved guilty.

GUNNING.—In the stock exchange, a term signifying that every art is to be used to produce a break in a stock, when it is known that a certain house is heavily supplied and would be unable to resist an attack.

HABEAS CORPUS.—A writ commanding the body of a prisoner to be produced at a certain time and place. If the prisoner thinks that his arrest is unlawful, he, or any one in his interest, may apply to any judge of a higher court for the above writ. This commands the sheriff to bring him before the judge, not to try him, but simply to examine the case to see whether the arrest is lawful. If he decides that the prisoner is lawfully held, he remands him to prison; if not, he orders him released.

HALF TONGUE.—A jury equally divided between two nationalities; as half English and half German.

HAND.—A measure of the hand's breadth, four inches,—used in measuring heights of horses; the style of any one's handwriting. **Handbills**, advertisements printed on small sheets for the purpose of being distributed by hand, or posted in public places. **Hand-habend**, a thief caught in the very act, with the stolen property in his hand. **Hand Money**, money paid by the purchaser at the closing of a contract or sale. **Hand Sale**, an ancient custom of shaking hands to bind a bargain or contract. The custom is still retained in verbal contracts.

HARBOR.—A port or haven where ships can anchor with safety, and also load and unload. **Harbor Master**, an officer whose duty is to execute the regulations respecting harbors.

HARDWARE.—A general name for all wares made from iron or other metals; as cutlery, kitchen utensils, etc.

HAVEN.—A port or shelter for ships; also the same as harbor.

HAWKER.—An itinerant trader who carries his goods with him and sells them to purchasers.

HEARING.—An investigation of a controversy; the trial of a chancery suit. **Hearsay Evidence**, the evidence of a witness who relates what was told him by another person.

HEIR.—One who succeeds by descent to an estate of inheritance. Neither one who receives personal property in that way, nor one who receives any kind of property under a will is properly called an heir. **Heir Apparent**, one who has an indefeasible right to an inheritance, provided he outlives the ancestor. **Heir at Law**, after his father's or ancestor's death, one who has a right to inherit all his lands, tenements, and hereditaments. **Heir-loom**, personal property which descends to an heir along with the inheritance, and cannot be devised away from the heir by will. (See Presumptive Heir).

HEPTARCHY.—A nation divided into seven governments, or one government exercised by seven persons.

HEREDITAMENTS.—Property of all kinds, which is capable of being inherited, whether real or personal, corporeal or incorporeal. **Heritable jurisdiction**, the grants of criminal jurisdiction bestowed on great families for the better execution of justice. **Heritable Rights**, all rights connected with real estate. **Heritage**, an estate which passes from an ancestor to an heir; all kinds of immovables which can be the subject of property.

HERMAPHRODITES.—Persons whose sex is doubtful, and are accordingly adjudged to belong to the sex which predominates in them. **Hibrid**, one whose parents are of different nationalities.

HIGH SEAS.—The ocean beyond the limit of the waters usually assigned to nations,—that is, beyond the limit of three miles. **High-Water Mark**, that line of the sea-shore to which the waters usually reach when the tide is at the highest. **Highway**, a road, passage, street, or way, either by land or water, which every citizen has a right to use. An owner of property bounded by a road or street usually owns the property to the center of the road or street. The public have the right to use it as a road, but do not own it. The adjoining owner may use it in any way that does not interfere with that right, though there are few ways in which he could make use of it without the obstruction of it, or otherwise interfering with its use by the public. If it should be abandoned as a roadway, it would then revert to the owner.

HIGLER.—A person who carries his goods from door to door, and sells at retail, usually small articles of provisions, and the like.

HOGSHEAD.—A measure for wine or other liquids, containing two barrels or 63 gallons. The English hogshead usually contains only 54 gallons.

HOLDING OVER.—Holding possession of land after the tenancy has expired, without the landlord's consent.

HOLIDAYS.—Legal holidays are those appointed by the civil authority for general public observance. As a rule, no sect, court, or public body has any power to declare a holiday, which can bind the public, or the rights of third parties.—Only acts of the government can do that.

HOLLOW WARE.—A commercial term for camp and kitchen utensils made of cast or wrought iron.

HOMESTEAD.—The ground on which a house stands, and the inclosed ground surrounding it.

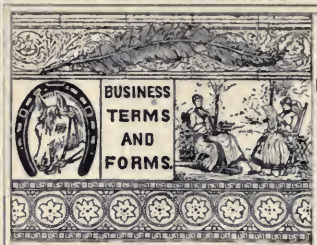
HOMICIDE.—Destroying the life of any human being. It is either justifiable, excusable, or felonious. It is justifiable (1) by an officer when necessary in the execution of his duty to take or prevent the escape of a prisoner; (2) by a private person in self-defence or in preventing any atrocious crime; (3) by any one through unavoidable accident without fault on his part.

HONOR.—To accept and pay when due, as a bill of exchange. **On One's Honor**, on the pledge of one's reputation for integrity. **Your Honor**, a common and familiar title of respect paid to persons by many of those in the humbler ranks of life. It is also given to judges. **Debts of Honor**, debts contracted in horse-racing, gambling, by verbal promise, etc., which cannot be enforced by law.

HOSTAGE.—A person given up to an enemy as a pledge for the performance of the terms of an agreement.

HOTCHPOT.—The confused mingling of property in order to divide it equally.

HOTEL KEEPER.—One engaged in the business of supplying board and lodging to travelers. The constituting elements are three: (1) he follows the work as a business; (2) he offers his services to the public generally; (3) he provides both food and lodging. In general, a hotel keeper is obliged to take all who apply for lodging and board, and who offer to pay the regular price; he is in general responsible for all injuries to the goods and baggage of his guests, even for thefts. But for loss caused by unavoidable accident, or by superior force, as robbery, he is not liable. He has a lien upon the baggage, or any other property, as a horse of his guests for the payment of their charges. A **boarding-house** is different from a hotel in two particulars: (1) it is not intended for transient guests, but for permanent boarders; (2) it is not open to the public. Only those are received whom the proprietor may choose to accept. He has no lien on the boarder's property, and is not responsible for its loss.



HOUSE.—A firm, but sometimes applied to a commercial establishment carried on by a single person. **House-bote,** an allowance of necessary timber out of the landlord's woods for the repairing and support of a house or tenement. **House of Call,** a house where journeymen of a particular trade assemble when out of work, and where they can be hired by employers. **House of Commons,** the lower branch of the English Parliament, whose members consist of representatives from towns and counties. **House of Lords,** the upper branch of Parliament, whose members consist of princes of the blood, peers of the realm, and certain bishops of the church. **House of Representatives,** the lower branch of Congress, whose members are elected by direct vote of the people of the different States. **House of Correction,** a house where disorderly persons are confined. **House of Ill-fame,** a house where lewd persons meet for illicit intercourse. **The White House,** the official residence of the President of the United States.—So called originally from its being painted white.

HUISSIER.—An officer whose duty is to serve processes; an usher of a court.

HUNDRED.—An English division of a county, supposed originally to have contained one hundred families. **Hundred Court,** a court whose jurisdiction is over a particular hundred.

HUSBAND.—One who manages the concerns of a ship in person. (See Marriage.) **Husbandage,** an allowance made to the managing owner or agent for attending to a ship's business.

HUSH MONEY.—A bribe given to secure silence.

HYPOTHECATION.—The pledging of a ship or goods for advances made; that right which a creditor has in and to the property of another, and which he may cause to be sold, and from the proceeds satisfy his claim.

IDIOT.—An imbecile person who has been without understanding from his birth. A contract with an idiot is void, from the fact that an agreement is an act of the mind, and one who has no mind cannot be said to agree.

IGNORANCE OF LAW.—Every one is presumed to know all the law, hence, the universal principle that ignorance of the law excuses no one. The only reason for this rule is the impossibility of having any other. One's only feasible course is to act according to what his common sense teaches him is just and moral, for in the main law is only common justice and morality.

ILLEGAL CONSIDERATION.—Any contract, the consideration of which is a forbidden act or promise, is illegal and void. Thus a promise to pay a bribe, or to pay one creditor more than the rest, would be void. **Illegal Contract,** a contract which, on account of its nature, the law forbids any one to make. Any contract which has for its purpose the furtherance of any object contrary to justice or common morality is void. Thus an agreement to smuggle goods, to bet, gamble, or to bribe, is wholly void.

IMAGINARY ACCOUNT.—A title employed to represent the person or company that conducts a business, or to supply the want of some personal or real title in keeping accounts. Any account neither personal nor real would come under this head, such as Interest, Stock, Expense, etc.

IMMORAL CONTRACT.—Any contract founded upon considerations contra bonos mores (contrary to good manners or morals) is void.

IMMOVABLES.—Things fastened in their places, and which cannot be removed; as, lands, houses, or fixtures.

IMMUNITY.—A particular privilege; as, exemption from serving, or performing duties which are generally required of other citizens.

IMPANEL.—To enroll the names of a jury in a court of justice in a schedule or piece of parchment.

IMPEACHMENT.—The formal act of charging a public officer for malfeasance or corrupt conduct in office. It is not a conviction of the offense, but only the accusation. When Federal officers are impeached, it is the duty of the lower house to make the impeachment, and of the upper house to try it. **Impeachment of Waste,** a restraint from committing waste upon lands or tenements.

IMPLICATION.—The act of bringing into connection with, as a crime or fault; a possible inference of something not directly declared. **Implied Contract,** an agreement which is implied from all the circumstances of the transaction. Implied contracts are quite common. They arise in those cases where, though there are no words of agreement by either party, yet something is said or done which in reality amounts to an agreement. One is always considered as having agreed to whatever he knowingly leads another to believe he has agreed to.

IMPOLITIC.—Contrary to the dictates of policy; unwise, imprudent, or indiscreet.

IMPORT.—Anything brought from a foreign country, or from a province, dominion, or colony of the mother country; used chiefly in the plural, imports. The person who imports the imports is called the importer.

IMPOSITION.—A tax, toll, duty, or excise, prescribed by authority. **Imposts,** taxes laid upon imported merchandise.

IMPOSSIBLE CONTRACT.—A contract to do a thing impossible in its nature is void. There are three kinds of impossible contracts: (1) that arising from the nature of the thing; as, a contract to sail around the world in a week; (2) that depending upon certain circumstances which might have been foreseen; as, a contract to transport goods, when prevented by the freezing of the river. (3) that depending upon the personal disability of the contractor; as, where one agrees to do certain work, and finds that he has not the skill.

IMPRISONMENT FOR DEBT.—Formerly this was quite common, but now it is confined to cases involving fraud and dishonesty.

IMPROVEMENTS UPON LANDS.—Everything above the land which is affixed to it, such as houses, trees, or crops, belong to the owner of the land. Even if houses are built upon the land, or other additions made to it by one not the owner, they become the property of the owner of the land. But there is an exception to this rule. A tenant may remove from rented property articles which he has built upon it or affixed to it, if they were placed there for use in some trade or for domestic purposes. The first class would include such things as steam-engines, or other machines built into the ground or house, or even buildings themselves when used for manufacturing purposes. The second class might include such things as furnaces, gas-fixtures, shelves pier-glasses, etc. **Improvement,** advance in prices, a brisker demand for goods, or an alteration for the better in the quality of goods.

INCOME.—The total amount of earnings and receipts of money from all sources. **Income Tax,** a tax laid upon the income of a person or corporation beyond some prescribed amount which the law exempts.

INCORPOREAL HEREDITAMENTS.—Anything which is the subject of property, but not tangible or visible.

INCUMBRANCE.—Any lien or claim attached to property, such as a mortgage.

INDEMNITY.—An agreement in the form of a bond by which one agrees to indemnify another for all loss or damage in any matter.

FORM OF INDEMNITY BOND.

Know all men by these presents, that I, ...James Wilson....of....Columbus, Ohio....am held and firmly bound unto....George Walker....of the same place, in the sum of....Five Thousand....Dollars, to be paid to the said....George Walker....., his executors or administrators, for which payment, well and truly to be made, I do bind myself, my heirs, executors,

and administrators, firmly by these presents.

Sealed with my seal. Dated this....10th.... day of....April....19....Whereas....George Walker....is about to employ....Henry Ames....as cashier in his store, for the term of....One Year....from....May 1st....19.....

Now the condition of this obligation is such that if the said....Henry Ames.. shall fully perform all the duties of his said employment, and promptly and correctly account for and pay over all the money or property of the said....George Walker....which may come into his hands during its course, then this obligation shall be void; otherwise to remain in full force.

....James Wilson....

INDENTURE.—A written covenant or contract between two or more persons in different interests. The top or sides were formerly indented or scolloped, hence the name.

INDEX.—An alphabetical table of ledger accounts; any table of reference or titles in alphabetic order.

INDICTMENT.—A formal accusation made by a grand jury against a person that he has committed a crime. The process of indictment is as follows: Some one, usually the district attorney, brings the fact of a crime to their notice; the jury then summon the witnesses (none who favor the accused) who are named and examine them; if twelve of the jurors vote that there is sufficient cause for putting him on trial, the indictment is drawn up by the district attorney, endorsed "a true bill" by the foreman of the grand jury, and then sent to the court. These proceedings are kept secret in order to prevent the offender's escape. A warrant is then issued for the arrest of the accused. If arrested, he may give bail, except in cases of crimes punishable by death, like murder. (See Bail and Trial).

INDIRECT EVIDENCE.—Inferential testimony as to the truth of a disputed fact. **Indirect Taxes**, taxes levied on commodities from the producer or importer only, the share of the taxes to the consumer being included in the price he pays for the commodities.

INDIVIDUAL NOTE.—A note signed by one party, who alone is responsible for its payment, unless indorsed by others. The following is a form:

$100. Helena, Oct. 3, 19...

Three months after date I promise to pay....John Wesley...., or order, ...One Hundred....Dollars, value received. ....Walter Ogle....

INDORSEMENT.—The same as Endorsement, which see. An open indorsement is the same as a blank endorsement. It may be converted into a full endorsement by writing the usual limiting words over the indorser's name.

INDUCEMENT.—Anything that leads or influences the mind or will to act; an allegation of a motive.—A term used in pleading.

INDULGENCE.—Extension of time of payment, or forbearance to press for payment.

INFAMY.—Public disgrace and conviction of a crime.

INFANT.—A person, either a boy or a girl, under the age of legal maturity, usually twenty-one years. The reason why an infant or minor may not make contracts which may be enforced against him is that he has not had, as a rule, sufficient experience to prevent others from gaining the advantage in his contracts. An infant having neither parents or guardian may make binding contracts for the necessaries of life, as food, clothing, etc.

INFORMATION.—An accusation or complaint against a person for some criminal offense. **Informer**, a person who complains of any one who breaks a law.

INFRINGEMENT.—(Of a patent).—The making, using, or selling, of a patented article without the permission of the owner of the patent. (Of a copyright).—The printing, publishing, or selling, of a copyrighted article without the permission of the owner of the copyright. (Of a trademark).—The using of another's trademark, or an imitation of it, without his permission. The **consequences** of an infringement are two fold: (1) the infringer must pay to the owner of the patent, copyright, or trade-mark, whatever damages the latter suffers through the infringement, equivalent usually to the profits which the infringer has made; (2) the court will compel the infringer to stop.

IN GROSS.—At large, independent of, or not annexed to, or dependent upon anything. **Ingrossing**, the copying in a fair hand, of a deed or instrument, in order that it may be executed.

INHERITANCE.—Continual possessions in, or a perpetual right to an estate, vested in a person and his heirs.

INHIBITION.—A writ from a higher to a lower court forbidding the proceedings in a cause.

INJUNCTION.—The writ or order of a court or judge whereby a person is required to do a certain thing, or is restrained from doing it.

INJURY.—Wrong or damage done to a person, property, rights, interests, etc., of any one.

INLAND BILLS.—Drafts or bills of exchange drawn on a party in the same State as the drawer. **Inland Trade**, trade conducted in the interior of a country.

FORM OF INLAND BILL OF EXCHANGE.

$100. Tipton, Ind., Feb. 1, 19..

At sight pay to....John Tanner... or order....One Hundred....Dollars, value received, and charge to the account of ....Wm. Bishop....

To....G.P. Brown,... ....Muncie, Ind....

INNKEEPER.—The keeper of a common-inn for the accommodation of travelers in general. The terms innkeeper, hotel keeper, and tavern keeper, all mean the same. (See Hotel Keeper).

INNOCENCE.—The absence of guilt. In law everyone is presumed to be innocent until proved guilty.

INQUEST.—A judicial inquiry; a body of men appointed by law to inquire into certain matters. A grand jury is sometimes called the grand inquest. A coroner's inquiry into the death of any one is called a coroner's inquest. (See Coroner). **Inquisition**, an inquest, or inquiry into certain facts by a jury impaneled for the purpose.

INSOLVENCY.—The condition of a man not having sufficient property to pay his debts. The same as bankruptcy. (See Assignment and Bankrupt). **Insolvent**, not having sufficient property to pay one's debts. **Insolvent Debtor**, one unable to pay his debts.

INSPECTORS OF ELECTION.—Persons designated by law, or chosen by the electors of a town for the purpose of conducting an election. It is their duty to preserve order, and to see that the business is properly done. They are also called judges of election. Two or more persons also serve as clerks, each of whom keeps a list of the names of the persons voting, which is called a poll-list.

INSTALLMENT.—A part of a sum of money paid or to be paid at a particular time.

FORM OF INSTALLMENT NOTE.

$700. Oberlin, Ohio, Feb. 1, 19...

For value received, I promise to pay to... A.B. Doe....or order,...Seven Hundred...Dollars, in manner following, to wit: Two Hundred dollars in one month from date; Two Hundred dollars in two months; and Three Hundred dollars in three months, with interest on the several sums as they become due. A.M. Cox.

BUSINESS TERMS.

INSTANCE.—All kinds of actions and judicial demands. **Instant,** a day of the present or current month.

INSTRUCTIONS.—The orders given by a principal to an agent in relation to the business of the agency.

INSTRUMENT.—A writing containing the terms of a contract; as, a deed or mortgage, etc.; **an agent,** often used in a bad sense.

INSUFFICIENCY.—A kind of demurrer, in chancery, in which the plaintiff has six weeks after filing the defendant's answer, in which to file exceptions to it for insufficiency.

INSURABLE INTEREST.—One's interest in ships or goods without having any right of control.

INSURANCE.—A contract or guaranty of indemnity or reimbursement for any loss. The Premium is the sum paid for insurance. The Rate is the per cent. on the amount insured. The Policy is regarded as the contract of insurance. The assured is the party to whom is guaranteed the amount mentioned in the policy. He is also called the policy-holder. The term of insurance of the policy, is the time which the policy is in force. The underwriter is a person or company who issues the policies, and is responsible for the payment of the losses. An insurance agent is a person who acts for the company in assuming risks, collecting premiums, etc. An insurance broker is one who negotiates policies, for which he receives a commission. An insurance surveyor is a person who examines buildings and classifies risks. An insurance company is a corporation which insures against loss or damage. (See Fire Insurance, Marine Insurance, Life Insurance, Transit Insurance, Policy, Mutual Insurance Co., Stock Insurance Co.).

INSURRECTION.—An attempt of persons to prevent the execution of a law; as, the Whisky Insurrection in western Pennsylvania.

INSURANCE CERTIFICATE.—A certificate by which the rights under an insurance policy may be transferred to any one. The following form illustrates:

THE NATIONAL INSURANCE COMPANY.

NEW YORK, AUGUST 14, 19....

This is to certify that on the Sunday of August, 19....., this company insured, under policy No. 25,178, made for A.M. CRANE, the amount of TWO THOUSAND dollars on 2,000 barrels of flour, valued at $10,000, shipped on board the ship HUDSON, at and from New York to Rio Janeiro, and it is hereby understood and agreed that in case of loss, such loss is payable to the order of A.M. Crane on surrender of the certificate.

This certificate represents and takes the place of the policy, and conveys all the rights of the original policy-holder, so far as the goods above specified are concerned. MARTIN & MORSE, Attorneys.

INTENDANT.—One who has charge, management, or the superintendance of some office or department.

INTERDICTION.—A prohibitive judicial decree by which one is prevented from exercising his civil rights.

INTEREST.—A share in a business or its profits; the sum paid for the use of money. In an interest or discount account, debit interest and discount when allowed by us to others; credit them when allowed to us by others. If the debit side of the account is the larger, the difference is a loss; if the credit side is the larger, the difference is a gain. The above directions will apply to all allowances, such as exchange, premium, collection, storage, commission, etc.

FORM OF INTEREST ACCOUNT.

Dr.	INTEREST AND DISCOUNT.		Cr.		
Feb. 4	Disc. on A's Note	10 00	Jan. 19	Int. on P's Note	12 00
" 17	Int. on B's Note	15 00	" 27	Int. on R's Note	10 00
" 21	Int. on C's Note	12 00	" 28	Loss,	15 00
		37 00			37 00

INTEREST-BEARING NOTE.—A note does not bear interest until after maturity unless so specified. If no rate is mentioned, the legal rate is understood. The following form illustrates:

$100. LITTLE ROCK, ARK., FEB. 1, 19...

Six months after date...I....promise to pay...W.H. BUNCH..., or order,...One Hundred...Dollars, with interest, for value received. ...J.B. WILLIAMS...

INTERLOCUTORY.—Something that is not final or definite, but is only an incident and done in the middle of a suit, deciding some one point.

INTERNAL REVENUE.—A form of indirect taxation from which a part of the revenues of the government is collected in the form of internal duties.

INTERNATIONAL DATE LINE.—The line at which dates change, being later by one day by those who cross the line from east to west, and earlier by one day by those who cross it from west to east. If a man start at London at noon on any day and travel eastward 180°, i.e., half way around the world, he will find that the time there is 12 hours later than at London; i.e., noon comes there 12 hours before it does at London. Now, another man starts at London at noon on the same day and travels westward 180°, till he meets the other man; he finds that the time at his destination is 12 hours earlier than at London. To one man it is a gain of 12 hours, and to the other a loss of 12 hours. To harmonize the time the rule is to drop out a day when crossing the international date line going westward, and to add a day to the week, or double the day when going eastward. Thus when a ship reaches the international date line sailing eastward on Monday, the crew call that day and also the next day Monday; sailing westward, instead of calling it Monday, they call it Tuesday. The one ship's crew have two Mondays together in the same week, while the other ship's crew have a week without a Monday in it. The sailors would say that the one ship's crew lost the Monday, and the other's picked it up. (See Local Time Chart-Index).

INTERNATIONAL LAW.—The rules recognized by Christian and civilized nations to be binding upon them in their conduct toward each other, and to each other's subjects. **International Copyright,** the right of an author to protection in publishing his works in different countries, as secured by treaties with other nations.

INTERPLEADER.—The discussion of an incidental point, before the principal cause can be determined; a bill in equity praying for the safety of the person exhibiting it.

INTESTACY.—The state of dying without having made a valid will. The order and proportion in which the relatives of a deceased person, who leaves no will, share in his property, are, as a rule, that all brothers and sisters, when entitled, share alike, there being no preference of the first-born over the others, nor of the male over the female. Of real estate, if there are children they take it all, or if any are dead their children take their parents' share. If there be no direct descendants, the father or mother, or brothers and sisters, of the intestate will be entitled. Of personal property the rules of distribution differ from the above in that those who are entitled do not take possession immediately, but await the distribution of the administrator.

IN TOTO.—Entirely, altogether, or in the whole. **In transitu,** during the transit or voyage.

INTRUSION.—The entry of a stranger, after an estate of freehold is determined before him in reversion or remainder.

INVENTORY.—A list of goods or merchandise, and sometimes including debts owing to or by us, usually made out at certain periods of the business year, for the purpose of knowing the quantity and value of unsold merchandise, in order to ascertain the condition of the business.

FORM OF INVENTORY.

INVENTORY, JAN. 31, 19...

MERCHANDISE.				
15 bbls. Lard, 3000 lbs.	0.08½	255	00	
125 " Pork	9.00	1125	00	
75 " Beef	12.00	900	00	
40 " Salt	1.25	50	00	
130 " Flour	5.00	650	00	
7 " Sugar, 1875 lbs.	0.06¾	121	88	
10 ch. Tea, 600 lbs.	0.50	300	00	3401 88

BUSINESS FORMS.

INVESTIGATION.—The act or process of examining and comparing entries and vouchers. **Investiture**, the act or right of giving possession of lands by actual seisin.

INVESTMENT.—That in which anything is invested, as money; the act of placing out money to interest or profit in the public funds, in the purchase of shares or property, etc.

INVOICE.—A full account of goods or merchandise, in which the marks, numbers, contents, and value of each package are described, together with the charges for commission, insurance, packing, etc. **Invoice Book**, a book containing invoices of merchandise bought. It may be made by copying invoices received, or by pasting the invoices themselves into a book prepared for this purpose. The latter method is preferable, and is admissible as evidence of the accuracy of one's accounts.

FORM OF INVOICE.

Invoice of Merchandise, marked as in the margin, and forwarded by J. C. Angell & Co., New York, per N. Y. C. R. R., to Messrs. M. C. Elliot & Co., Chicago, as per their order and at their risk.

E.&Co.	5 Cases ¼ Sardines, 500 boxes @ 35 c.	175	00
E.&Co.	10 Bbls. Currants, 268, 254, 236, 264, 244, 243, 260, 260, 260, 260, Total, 2330 Tare, 26 lbs. per bbl, 260 2270 @ 18 c.	408	60
E.&Co.	10 Boxes Castile Soap, 406 lbs. Tare, 8 lbs. per box, 80 326 @ 14 c.	45	64
E.&Co.	5 Bags Canary Seed, 1184 lbs. – 15 lbs. tare = 1169 net, 19 $\frac{29}{60}$ bushels, @ 4.85,	94	49
E.&Co.	25 Boxes Valencia Raisins, Gross weight, 710 lbs. Tare, 4½ lbs. per box, 112½ 597½ @ 15 c.	89	62
		813	35
	Cartage, 3.00		
	Ins. on $800 @ ½ per cent. 4.00	7	00
		820	85
	Rec'd Payment, J. C. Angell & Co.		

INVOLUNTARY.—Under duress; not proceeding from choice. **Involved**, embarrassed by debts.

IRREGULARITY.—Neglect of law, form, or method; an act done at an unseasonable time, or in an improper manner, as in omitting to do something that is necessary for the due and orderly conduct of a suit at law. **Irregular Deposit**, a deposit such that when made it need not be returned. **Irrepleviable**, that which cannot be replevied or delivered on sureties. **Irrevocable**, that which cannot be revoked, reversed, or rescinded.

ISSUE.—All persons who have descended from a common ancestor; a certain material point in dispute in a suit at law; the giving or sending out, as of banknotes. **Issuable Plea**, a plea upon which a plaintiff may take issue and proceed to trial upon the merits.

JETSAM (OR JETTISON).—The voluntary throwing of goods overboard, or cutting away masts, casting away sails, etc., in cases of extreme peril, that a ship may be lightened, and the ship itself, and the rest of the cargo preserved. Jetsam is where goods are cast into the sea, and there sink, and remain under the water; flotsam is where they continue to float; ligan is where they are sunk in the sea, but tied to a cork or buoy. (See General Average).

JOBBER.—A wholesale merchant who buys goods from the manufacturers and importers, and sells to country or other merchants and to retailers. **Job Lot**, an irregular assortment of goods, or the goods unsold at the end of the season.

JOINDER OF ACTION.—The act of uniting two or more persons or matters in the same suit or proceeding. **Joinder in Demurrer**, the joining of an issue in a matter of law. **Joinder of Issue**, an issue of fact where the fact and not the law is disputed.

JOINT ACTION.—An action brought by two or more persons as plaintiffs against two or more others as defendants. **Joint and Several Bond**, a bond made by two or more persons, who bind themselves jointly and severally to other persons. **Suit** may be brought against them either jointly or severally for the whole amount. If one obligor pays the whole amount, he has a right of contribution in his favor against the other obligors. **Joint and Several Note**, a note similar in its nature to the preceding bond. **Joint Contract**, a contract in which the contractors are jointly bound. **Joint Executor**, one who is united with another in the execution of a will. **Joint Note**, a note made by two or more persons, who are jointly liable for its payment. **Joint Ownership**, the possession of the same property at the same time by two or more persons. Each joint owner has an undivided share of the whole, and the shares may be either equal or unequal. All may use the property together, and each is entitled to a proportionate share of the profits. Each may sell to any one his individual share. Joint owners may divide the property among themselves, and thus make themselves separate owners of the separate parts. Should they be unable to agree, any one of them may bring a suit, and the court will make the division according to their relative interests. Joint ownership may arise in several ways; as, when property is given by deed as a single piece to two or more, or when a person dies without a will his heirs become joint owners of his real estate. **Joint Stock**, a common fund or stock formed by the contributions or paid-up shares of different persons. **Joint Stock Company**, a number of individuals united in partnership for the purpose of deriving profit from trade, or for carrying on any large undertaking, whose capital, when apportioned among its members, and then called shares, may be individually transferred to others at will. **Joint Tenants**, two or more persons to whom are granted lands or tenements to hold in fee-simple, fee-tail, for life, for years, or at will. The right of survivorship belongs to an estate thus held.

FORM OF JOINT NOTE.

$1000. Anniston, Ala., Oct. 3, 19...

One year after date we jointly promise to pay ....Jer. Sox..., or order, ...One Thousand....Dollars, value received, with interest.

....Alex. Gibson....

....J. L. Bynum....

FORM OF JOINT AND SEVERAL NOTE.

$200. Tacoma, Wash., Feb. 1, 19...

One year after date we jointly and severally promise to pay....A. Cox..., or order, ...Two Hundred....Dollars, value received, with interest at six per cent. per annum.

....S. S. Gregory....

....M. L. Brown....

JOINTURE.—An estate settled on a married woman for life, to be enjoyed after her husband's decease.

JOURNAL.—A book in which the transactions first entered in the Day Book, Sales Book, or Invoice Book, are transferred and so entered as to make the sum of the amounts opposite the Dr. titles equal to the sum of the amounts opposite the Cr. titles, and to facilitate their transfer to the proper side of their respective accounts in the Ledger. **Journal Day Book**, a book combining with the Journal the essential facts commonly recorded in a Day Book, so as to make this one book serve the double purpose of Journal and Day Book. In journalizing double-entry transactions, it must be observed that whenever one or more persons or things become Dr., one or more other persons or things become Cr. in like amount. There are four forms of Journal entries, classified as follows: (1) Where there is but one debit and one credit; (2) Where there are several debits

and but one credit; (3) Where there is but one debit and several credits; (4) Where there are several debits and several credits. (See Form of Double Entry Journal).

FORM OF SINGLE ENTRY JOURNAL.

INDIANAPOLIS, JAN. 10, 19....

1	J.C. Scott, Commenced business with the following resources:	Cr.			4000 00
	Cash, as per Cash Book,		1500 00		
	Store and fixtures,		2500 00		
12					
	Baker & Co., Boston, Bo't Mdse., 60 ds., 2% 10 ds.	Cr.			575 75
14					
	A. Borden, Conners, Sold on acck., 30 ds.,	Dr.			
	5 pcs. A. Sheeting, 256,	8¢	21	76	
	3 " C. Drills, 125,	9¢	11	88	
	4 " Y. Denims 150,	16⅔	25	00	

FORM OF DOUBLE ENTRY JOURNAL.

DETROIT, MAY 1, 19....

	Mdse. Dr.		500	00	
	To Cash,				500 00
2					
	Sundries Dr. to Mdse.,				375 00
	Cash,		175	00	
	Caleb Shank,		200	00	
3					
	Mdse. Dr. to Sundries,		500	00	
	To Cash,				315 00
	" W.S. Kratz,				185 00
4					
	Sundries Dr. to Sundries,				
	Cash,		300	00	
	M. Boles,		250	00	
	To Mdse.,				100 00
	" Real Estate,				450 00

FORM OF JOURNAL DAY BOOK.

NASHVILLE, OCT. 1, 19....

	A.L. Martin To Cash,	Paid him cash on account.	150	00	150 00
2					
	Bills Rec. To Mdse.,	Sold A. Bender on his note at 30 ds. with interest, 50 bbls. Flour, @ 6.00	300	00	300 00
3					
	Carl Bros. To Bills Pay.,	Note at 10 ds. with interest, in full of account.	375	00	375 00
4					
	Expense To Cash,	Paid Sept. electric light bill in cash.	15	75	15 75
5					
	Bills Pay. Interest To Cash,	Paid note of Aug. 11, favor of Wolff Bros., with interest, in cash.	700	00	
			15	15	715 15
6					
	Etc.				

JUDGES.—Presiding officers in courts of law, who also award punishment to offenders. The President and Senate appoint the judges of the Supreme Court, and of the Circuit and District Courts. Of the State Courts, the judges are sometimes elected by the people, sometimes by the legislature, and sometimes appointed by the Governor. The terms of the National judges are for life, and those of the State judges vary, being generally from six to ten years in the higher courts, while in the lower the terms vary from one to two years. **Judex**, a judge who conducts a trial from beginning to end. **Judge Advocate**, a person who acts as prosecutor at a court-martial. **Judicial Decisions**, the sentiments or opinions of judges in causes tried before them. **Judicial Sale**, a sale by an authorized person, by order of a court.

JUDGMENT.—A decision by a court upon a matter appearing from a previous proceeding in the suit. **Judgment Note**, a note given in the usual form, but containing in addition a power of attorney to the payee, or other person, to appear and confess judgment for the sum therein contained, against the maker.

FORM OF JUDGMENT NOTE.

For value received, I promise to pay to....HENRY GASHO..., of Topeka, or order, ...FIVE HUNDRED....Dollars, with interest, on the...first...day of ...November...next. And further, I do hereby empower any attorney of the Court of Common Pleas of Shawnee County, or any Court of Record in Kansas, or elsewhere, to appear for me, and after a declaration filed therefor, to confess a judgment against me in the above sum, as of last, next, or any other subsequent term, with costs of suits, release of errors, etc., with stay of execution until said...first... day of...November...next.

Witness my hand and seal, at Topeka, Kan., this...first...day of...January...., 19....

Signed, sealed, and delivered in presence of ....JOHN GEORGE.... ....JAS. F. DAILY..... | JOHN MILLER. [Seal]

JUNIOR PARTNER.—The youngest member of a firm, or one who has acquired an interest in an established business.

JURISDICTION.—The class or classes of causes in which a court has power to pronounce the law. A court is said to have original jurisdiction when the case may originate (be commenced) in it; it has appellate jurisdiction when it may hear the case on appeal from a lower court.

JURIST.—One who is skilled in the science of law, especially civil law. **Jury**, a certain number of men (usually twelve) selected and sworn to declare the truth according to the evidence which placed before them on the trial of the cause. (See Grand Jury).

JUSTICES OF THE PEACE.—Public officers, having authority to maintain the public peace, and punish the offenders. There are usually several of these officers in each town or similar division. Each justice holds court, and has power to try civil cases which involve small amounts (usually less than $100), and to try persons who have committed small offenses.

JUSTIFICATION.—In pleading, a plea of sufficient reason, shown by the defendant. **Justifiable Homicide**, the killing of another in self-defence, or to preserve one's own life. **Justifying Bail**, proving to the satisfaction of the court, the sufficiency of the persons put in as bail or sureties, in matter of property, etc.

KEELS.—Low flat-bottomed vessels employed on rivers for carrying coal.

KEYAGE.—Toll paid for loading or unloading vessels at a wharf.

KIDNAP.—To forcibly abduct and carry away a man, woman, or child from their own country. It also includes false imprisonment.

KILOGRAM.—A French measure of weight equal to 2⅕ lbs. avoirdupois, or 15,442.42 grains.

KINDRED.—Related to each other by blood. (See Relationship). **Kinsbote**, a compensation paid for killing a kinsman.

KITING (OR KITE-FLYING).—Expanding one's credit beyond wholsome limits; exchanging checks on different banks for the purpose of obtaining the use of money for a single day.

KNAVE.—Formerly meant boy or servant, but by long perversion, it has become to mean a false, dishonest or deceitful person.

LABEL.—A small slip of paper or parchment attached to anything, on which a writing is inscribed to tell its nature or contents, or on which an address is written.

LABOR.—For agreement concerning labor, see Employer. **Laboring a Jury**, the act of tampering with, or persuading a juryman to not appear.

LAGAN.—Goods found at sea, belonging to the finder. **Laity**, all persons who do not belong to the clergy.

LAME DUCK.—A stock exchange term signifying one who fails to meet his engagements.

LAND.—To disembark; to unload a ship's cargo; any ground, soil, or earth. **Landcheap**, a fine paid in certain places, upon the alienation of land. **Landed**, taken from a vessel and placed on a wharf or pier. **Landing**, a place on the shore where vessels receive or discharge goods or passengers. **Land-Jobber**, one who makes it his business to buy and sell land. **Landlady**, a woman

who has tenants holding from her; the mistress of an inn or lodging-house. **Landlord**, the master of a house, or the keeper of an inn, tavern, or hotel; the proprietor of houses and lands, and who rents them to others. **Land-tax**, a tax laid on land or buildings.

LANDLORD AND TENANT.—A Tenant is one to whom the owner of real estate (the landlord) has granted the sole and full use of for a time, for a consideration to be paid by him. This relation arises from agreement, and it exists as much in letting a single room in a house, as when it is of the whole house and grounds. The duration for which the relation is to last depends altogether on the contract, which should specify some definite time, as a month, a year, five years, etc. (See Contract). If no time is specified and no rent is paid, either party may end the tenancy at any time; but if rent is to be paid, neither party can terminate the tenancy until the end of the time specified in the contract, except from mutual agreement. When no time is specified, it is generally understood that the tenant can hold possession for one year. (See Eviction, Improvements, Lease, Quit, Rent, Repairs, Tenancy).

LANDSMAN.—A sailor on board a ship for the first time, and consequently without maritime experience.

LAPSE.—Deviation from the proper path; omission to present a benefice in due time, which gives the right to another. **Lapsed Devise**, a devise having lost its effect because of the death of the devisee before the testator. **Lapsed Legacy**, a legacy having lost its effect because of the death of the legatee before the testator.

LARCENY.—Usually called theft or stealing, is the wrongful taking of another's personal property, with the intent to deprive him of it permanently. (See Grand Larceny and Petit Larceny).

LAST HEIR.—One who will inherit lands if they escheat for want of lawful heirs. **Last Will**, a document by which a person disposes of his real estate upon his death. If applied to his personal property, it is called a Testament. **Laudum**, an arbitrament or award.

LAW.—A rule for regulating the social relations of men. In its general signification, it applies to all kinds of actions, whether animate or inanimate, rational or irrational. **Law borgh**, a pledge or surety for appearance. **Law-burrows**, security given by a party that he will behave properly and keep the peace. **Law Day**, a day or days allowed for open court; the day designated in a mortgage when the money which it secures is to be paid; a court leet or view of frank-pledge. **Law French**, a term relating to the statutes of Henry III. (1574–89), and some of the subsequent reigns, which were partly or wholly written in the French language. **Law Latin**, the late or low Latin used in statutes or legal instruments, at various periods until the reign of George II. (1727–60). **Law Merchant**, the body of rules and usages in matters relative to commerce. **Law of Nations**, same as International Law, which see. **Law of Nature**, the law prescribed for all men by the Creator, not by formal promulgation, but by the dictates of reason. **Law of Primogeniture**, in cases of descent, a law giving a title to the eldest son, in preference to the other children. **Lawyer**, a solicitor or attorney, or one skilled in the science of law.

LAY.—To allege or state, as to lay damages; belonging to the people; pertaining to the laity as distinct from the clergy. **Lay Corporations**, civil and eleemosynary. The civil are established for a variety of purposes, and are intended to facilitate the transaction of business. The eleemosynary are constituted for the perpetual distribution of free alms, or bounty, of the founder of them, to such persons as he has directed; as, hospitals, colleges, etc. **Lay Days**, days allowed to a merchant or charterer to load or unload a cargo. **Layman**, any one not a clergyman or an ecclesiastic, or one who does not belong to the learned professions.

LAZARETS.—Places where persons are quarantined who come from infected countries; also where goods landed from ships in quarantine are fumigated previous to their delivery. Called also Lazar-house or Lazaretto.

LAY DOWN.—A term expressive of the entire cost of a commodity, including transportation, etc., at a place remote from its purchase and production. **Lay Up**, to store away or reserve for future use.

LEADING CASE.—A decision from a court of last resort, on some particular matter, and serving as a precedent. **Leading Question**, a question put to a witness in such a manner as to suggest the answer wanted.

LEAKAGE.—An allowance of a certain rate per cent. for the waste of liquors by the leaking of casks.

LEASE.—A letting of lands or houses for life, for a term of years, or at will, or for any less interest than the lessor (or person who lets) has in the property, for a rent or compensation to be paid by the lessee (the person to whom the lease is granted). It is essential that a lease contain all the conditions and minor details, as verbal promises avail nothing in law. Duplicate copies of a lease should always be made, that each party may retain a copy. A new lease invalidates an old one. A lease for three or more years should be signed by the Commissioner of Deeds, and recorded in the Recorder's office, as a bar to the secret or fraudulent conveyance of the leased property, and to obviate the necessity of procuring witnesses to authenticate the validity of the lease. A lease on property that is mortgaged ceases to exist when the person holding such mortgage forecloses it. Neither a guardian nor a minor can give a lease, extending beyond the ward's majority, which can be enforced by the lessee; yet the latter is bound unless the lease is annulled.

FORM OF LEASE FOR A HOUSE.

This Instrument, made the...1st ... day of...September..., 19...., **Witnesseth**, That...John Masters...of the city of...Oakland..., State of...California..., hath rented from...M.M. Estee..., of the same place, the dwelling and lot No. 177 Market Street, situated in said town of...Oakland..., for five years from the above date, at the yearly rental...Three Hundred...Dollars, payable monthly, on the first day of each month, in advance, at the residence of the said...M.M. Estee...

At the expiration of the said above mentioned term, the said...John Masters...agrees to give the said...M. M. Estee...peaceable possession of said dwelling, in as good condition as when taken, ordinary wear and casualties excepted.

In witness whereof, we place our hands and seals the day and year aforesaid.

Signed, sealed, and delivered in presence of ...J. W. METTLIN... ...H. S. WARMAN.... — JOHN MASTERS. [L.S.] M.M. ESTEE. [L.S.]

LEASE OF FARM AND BUILDINGS.

This Indenture, made this...First ...day of...August..., 19...., between ...Silas Negley..., of the township of Cicero, county of Tipton, and State of Indiana, of the first part, and.... O.P. Roas..., of the said township and county, of the second part,

Witnesseth, That the said...Silas Negley....for and in consideration of the yearly rents and covenants hereinafter mentioned, and reserved on the part and behalf of the said ...Silas Negley..., his heirs, executors and administrators, to be paid, kept and performed, hath demised, set and to farm let, and by these presents doth demise, set and to farm let, unto the said...O.P. Roas..., his heirs and assigns, all that certain piece, parcel or tract of land situate, lying and being in the township of Cicero afore

said, bounded and described as follows, to wit: (Give description of farm here).

Together with all and singular the buildings and improvements, to have and to hold the same unto the said ...O. P. Roas..., his heirs, executors and assigns, from the ..first... day of... January... next, for and during the term of ..five... years thence, next ensuing, and fully to be complete and ended, yielding and paying for the same, unto the said ...Silas Negley..., his heirs and assigns, the yearly rent, or sum of ——Seven Hundred—— Dollars, on the first day of August in each and every year, during the term aforesaid, and at the expiration of said term, or sooner if determined upon, he, the said...O. P. Roas..., his heirs or assigns, shall and will quietly and peaceably surrender and yield up the said demised premises, with the appurtenances, unto the said....Silas Negley..., his heirs and assigns, in as good order and repair as the same now are, reasonable wear, tear and casualties, which may happen by fire, or otherwise, only excepted.

In witness whereof, we have hereunto set our hands and seals the day and year first mentioned above.

Signed, sealed, and delivered in presence of } ...Silas Negley...[L.S.]
...Sherley Walton.... } ...O. P. Roas.....[L.S.]
...Franklin Teel.....

FORM OF LANDLORD'S AGREEMENT.

This certifies that I have let and rented, this ..first... day of ..May...19..., unto...B. M. Blount..., my house and lot, No. 1737 Sutter Street, in the city of San Francisco, State of California, and its appurtenances; he to have the free and uninterrupted occupation thereof for...One...year from this date, at the yearly rental of ——Eight Hundred—— Dollars, to be paid monthly in advance; rent to cease if destroyed by fire, or otherwise made untenantable.

...Emery Van Cleve.

FORM OF TENANT'S AGREEMENT.

This certifies that I have hired and taken from...Emery Van Cleve..., his house and lot, No...1737 Sutter...Street, in the city of San Francisco, State of California, with appurtenances thereto belonging, for ...One...year, to commence this day, at a yearly rental of——Eight Hundred——Dollars, to be paid monthly in advance; unless said house becomes untenantable from fire or other causes, in which case rent ceases; and I further agree to give and yield said premises one year from this ...first...day of..May...19..., in as good condition as now, ordinary wear and casualties excepted.

...B. M. Blount...

LEASE AND RELEASE.—An instrument conveying the right or interest in lands or tenements, which in law amounts to a feoffment.

LEDGER.—A book employed for gathering from the Journal and books of original entry, and entering under their respective titles, the Dr. and Cr. sums belonging to the several accounts arising in one's business. In a very limited business the Ledger may be the only book required.

FORM OF LEDGER ACCOUNT.

M. S. Monsforo.

Dr.						Cr.			
19—					19—				
Jan.	3	To Mdse.	21	10	Feb.	4	By Cash	10	00
"	7	" "	15	00	"	11	" "	20	00
"	11	" Sundries	17	15	"	18	" "	15	00
"	21	" Mdse.	15	10	"	21	" "	10	00
"	"	" "	20	00			" Balance	33	35
			88	35				88	35
Mch.	1	To Balance	33	35					

LEGACY.—A gift by will, of goods, money, or other movable property.

LEGAL ASSETS.—That portion of the property of a deceased person, which the common law can reach for the purpose of satisfying his creditors. **Legal Holidays,** certain days appointed by law upon which it is recommended that people refrain from their ordinary business. (See Holidays). In promissory notes, whenever the last day of grace falls upon a Sunday or legal holiday, the note is due the day before. **Legal Rate of Interest,** that rate established by law applicable to all cases where interest is allowed, but in which the parties themselves have not specified any rate. (See Statistical Bureau of U.S. for the legal rate in each State.—Index). **Legal Tender,** that kind of money which by law can be offered in the payment of a debt. Gold coins are legal tender for any amount. Silver coins (dollars) are legal tender for any amount, but the fractional coins for sums not exceeding $10. Copper and nickel pieces for sums not exceeding 25 cents. National Bank Bills and U.S. Notes are not legal tender; neither are any foreign gold or silver coins.

LEGISLATOR.—A member of the legislature, who is elected to assist in the enactment of laws. **Legislature,** that body of men chosen for the purpose of enacting new laws, and revising or repealing old ones. **Legitimate Children,** those who are born in wedlock, or in a lawful manner. All others are illegitimate.

LESION.—A hurt or injury suffered, in consequence of inequality of situation, by one who does not receive full equivalent for what he gives in a commutative contract. **Lessee,** one to whom a lease is made. **Lessor,** one who grants a lease. **Let,** a hindrance or obstruction; **to** lease.

LETTER.—A written or printed message, folded and sealed, sent by one person to an other. **Letter Book,** a book in which letters are copied or transcribed. **Letter Box,** a mail box in which letters are deposited. **Letter Carrier,** a postman who delivers letters. **Dead Letter,** a letter addressed to a person who cannot be found, or who is dead; that which has lost its force or authority. **Letter of Advice,** a letter giving notice of a transaction; a book containing information of a shipment of goods, of a bill of exchange being drawn on the party addressed, or of some act done by the writer of the letter in which the person to whom it is written has an interest. **Letter of Attorney,** same as Power of Attorney, which see. **Letter of Credit,** a letter from a correspondent to another, authorizing credit to a certain amount of money to be given to the bearer. (See under Business Letters—Index, for form). **Letter of License,** a customs permit; permission or privilege granted. **Letter of Marque,** the license or permission given by Government to a private ship in time of war to seize on the ships of another State, under pretense of satisfaction for injuries received. **Letter of Revocation,** an instrument revoking some power or authority granted. (See Attorney for form). **Letter of Substitution,** an instrument appointing some one else to act for one who has been vested by a party with legal power to act for him. (See Attorney for form). **Letters of Administration,** a legal instrument giving the administrator full power to administer the goods, chattels, rights, and credits which belonged to the deceased. **Letters Patent,** a document granted by Government, authorizing a person to do some act, or to enjoy some right, to the exclusion of others; as, a patent right.

LETTER CONTRACTS.—Whenever there has been an offer made by letter, and it is accepted by letter, there is a contract. The offer may remain open for a number of days unless withdrawn, but the contract is complete the instant the letter of acceptance is put into the mail, if it is properly directed. It matters not whether the letter of acceptance ever reaches the first party or not, nor that the latter has meanwhile withdrawn his offer. The offer may be withdrawn at any time before it is accepted, but notice of the withdrawal must reach the other party before he has mailed his acceptance. If an order for goods is sent by mail, and acted upon, it is a written contract, so far as the writer is concerned, but not as to the other party; he must accept by letter, before there is a written contract between both parties.

A telegram, in the same way, may be a written contract. Great care should be exercised in guarding against mistakes; use the telegraph if necessary.

LEVY.—To raise or collect, said of taxes or troops. In general it is raising of money by assessment for which an execution has been issued.

LIABILITIES.—The pecuniary obligations of any one, including all the debts he owes, whether expressed in notes, in accounts, or otherwise. **Liability**, the state of being bound or obliged by law to take the legal consequences of a certain thing's being or not being done.

LIBEL.—A malicious or defamatory writing, reflecting on the character of a person, and punishable by law; a written statement by a plaintiff of a cause of action; to proceed against by filing a libel, as against a ship or goods.

LIBERTY.—Freedom to exercise and enjoy one's rights, and is either natural, political, civil, or religious, according to the particular class of rights referred to. The rights guaranteed by the constitution or political law is called political liberty. Those secured by civil or municipal law is called civil liberty. Freedom of religious opinion and worship is called religious liberty. Freedom to enjoy life, pursue happiness, etc. is called natural liberty.

LICENSE.—Legal permission to do a certain act, or pursue a certain business; as, to sell a certain article, to engage in the practice of medicine, etc. **Licentiousness**, the doing of what one pleases, disregarding the rights of others. **Liege**, a subject; bound by a feudal tenure.

LIEN.—A hold or claim which one person has upon the property of another, by way of security for some debt or charge. **Who have them?**—(1) A seller of goods (unless selling on credit) until the price is paid; (2) A common carrier, until his charges are paid. (3) A hotel keeper, until his charges are paid. (4) A person holding property as a pledge, until the debt is paid. (5) A person repairing property, until charges are paid. (6) A commission merchant, until all commission, advances, and expenses due are paid. (7) A person holding a judgment for money against real estate or other property, until the judgment is paid. (8) Tax collectors, until all taxes due on personal or real property are paid.

LIEUTENANT-GOVERNOR.—An officer elected in many States to fill the vacancy in the office of Governor in case the latter should die, resign, be removed, or otherwise become incompetent. The Lieutenant Governor has but few duties, other than to preside in the senate, in which he has only a casting vote.

LIFE.—The sum of forces by which existence is maintained and death resisted. **Life Annuity**, an annual income paid during a particular life, and terminating with the death of the person. When limited to a given number of years of such life, it is called a temporary life annuity. If it begin a certain number of years hence, it is called a deferred life annuity. If it depend on the joint continuance of two or more lives, it is called a joint life annuity. Various tables have been constructed to illustrate the probabilities of life at various ages. (See Carlisle Table of Mortality, under Weights and Measures).

Lifeboat, a boat of peculiar construction, made so as not to be possible to be sunk, for saving life in case of shipwreck.

Life-buoy, an article constructed from cork or other light material for keeping a person floating in water. Also called life-preserver. **Life Estate**, an estate to be enjoyed for life only. **Life Insurance**, a contract by which the insurer agrees, in return for certain premiums received, to pay a certain sum to the heirs or assigns of the insured, on the death of a person designated in the policy, or when he reaches a certain age. The object of life insurance is to give those who are dependent upon a certain person, some means of support if he should suddenly die. Life insurance policies are either whole-life or term policies. Under term policies the sum assured is payable at a certain age, if the party live, or at death, if that occur sooner. A person may insure his own life in as many companies as he chooses, and to any amount that he chooses, provided he is willing to pay the premiums. A person may not only insure his own life, but also that of another person, in whom he has a pecuniary interest; as, a wife that of her husband, or a child that of his father; also a creditor may insure the life of his debtor. The insurance ceases if the premium is not paid when due. A policy may be assigned by obtaining the Company's consent. If any deception is practiced in any way in applying for and in obtaining a policy, it renders it void.

Life Ownership, the possession of property during one's life only. It differs from a full ownership (1) He cannot sell or mortgage the property. (2) He cannot control the disposition of it at his death. (3) He can do nothing with it which will decrease its value, as by taking down buildings. A life ownership may arise in the following ways: (1) A full owner may give a life ownership to one for whom he wishes to provide but to whom he does not care to give the power to dispose of the property; as, a father to a spendthrift son. (2) A widow's dower, or life interest in one-third of her deceased husband's property. (3) A widower's interest in his deceased wife's property, provided a child has been born.

FORM OF LIFE INSURANCE POLICY.

No. 44,917. $5000.

THE ORIENT LIFE INSURANCE COMPANY.

In Consideration of the representations made to them in the application for this policy, and of the sum of ....One Hundred.... Dollars, and the further sums of....One Hundred.... Dollars to be paid on the...Fives...day of January and July of each year during the continuance of this policy, do insure the life of...Jacob Albright..., of...Peoria,...in the county of...Nazewell..., State of...Illinois..., in the amount of....Five Thousand.... Dollars for the term of his natural life. And the said Company does promise and agree to pay the amount of the said insurance at its office in Boston to...Jacob Albright's....legal representatives, in sixty days, after due notice and satisfactory proof of his death during the continuance of this policy.

In witness whereof the said Orient Life Insurance Company has by its president and actuary signed and delivered this contract this ..Fives... day of...January...,19....

Abdel Young, Actuary. Martin Wynne, President.

Premium $100, payable semi-annually.

LIGAN.—Goods sunk in the sea, but tied to a buoy, that they may be recovered again. **Lighters**, small vessels used in unloading or loading larger ones.

LIMITATION OF ACTION.—A certain time, regulated by statute, within which an action must be brought. The reason for limiting the time in which to bring suit is two-fold: (1) Old and stale claims are likely to be ill-founded; for if just, some attempt would have been made to enforce it. (2) It is considered best that a person should not be troubled with an old claim, though it be just, because he has been led to believe that it would not be pressed. The time in which suit may be brought varies in different classes of cases from one to twenty years, and differs in different States. For ordinary business contracts the time allowed in which to commence suit is five or six years. For oral or open accounts many States make six years the limit, but on written contracts, especially those having a seal attached, such as judgments, the time is from ten to

twenty years. In most of the States the time on promissory notes is six years. (See Statistical Bureau of the United States—Index). After the time has expired the debt is said to be outlawed, and cannot be enforced. **Change** of ownership does not affect the time. **The** period of limitation begins to run on the day when the debt is due; but if at any time after this a part payment is made, that renews the claim, and the period begins on that day. **Also** if the debtor at any time after it is due makes a written promise that he will pay the debt, that has the same effect as a part payment. **Limitation of Estates**, the settlement of an estate, determining how long it shall continue. **Limited Divorce**, separation from bed and board. **Limited Partnership**, one formed by special law, in which there are one or more partners whose property cannot be taken to pay the firm's debts, beyond the amount they have contributed to it.

LINE.—The relationship existing between persons descended in a right line. **Line of Deposit**, the average amount kept by a merchant to his credit in bank. **Line of Discount**, the average amount borrowed by a merchant from a bank upon notes and bills discounted by such bank for him. **Lineal**, in a direct line. **Lineal Descent**, the descent of estates from one to another in a direct line, as from an ancestor to heir.

LIQUIDATION.—The winding up or final settlement of the affairs of a commercial house, in adjusting and settling of all its debts. **Liquidated Damages**, damages determined beforehand, and inserted in an agreement, which would result from a breach of the agreement.

LITHERAGE.—The price paid for unloading ships by lighters or boats used to convey the goods on shore. **Litigation**, a judicial contest or lawsuit.

LIVE PAPER.—Notes, etc., that have not yet matured. **Overdue** or protested paper is termed **dead**. **Livery**, delivery of possession of lands to tenants. **Livery of Seisin**, delivery of possession of lands, tenements, and hereditaments, unto one who has the right to the same. **Live Stock**, a general term for the domestic animals of the farm. **Living** or **livelihood**, means or income for subsistence. **Livery-stable**, a stable where horses and carriages are kept for hire.

Lloyd's, a marine insurance society of London, deriving its name from the coffee house where it originated. The underwriters, for a premium, grant an indemnity to merchants against risks at sea. The records of this society contain a complete history of the sea so far as concerns the number of shipwrecks, collisions, fires, piracies, mutinies, etc. **Lloyd's Register**, an annual register of vessels, giving the tonnage, age, build, character and condition of each ship whose owners conform to their rules. In addition to the annual issue of a volume, there are occasional supplements when alterations or additions are necessary.

LOAD.—An undefined quantity of different articles or commodities, as a cart-load, boat-load, etc.; **a** defined quantity, as a load of flour is 10 barrels; of bricks, 500; of cotton, 3 bales.

LOAN.—A bailment without reward; **that** which is lent for a temporary purpose. **Loan Office**, a place where small sums of money are lent at high interest to be repaid by installments; **a** pawnbroking office. **Call Loan**, a sum of money loaned by a banker or other person, secured by the deposit of stocks, bonds, or other marketable securities, to be paid when called for. A failure to make good the loan within a certain time (usually twenty-four hours) is regarded as authority to the lender to sell the securities in his possession.

LOCAL ACTIONS.—A term applied to actions when all the principal facts on which they are founded are of a local nature. **Local Train**, a train making stops regularly at all the stations along a line.

LOG BOOK.—A book used in measuring the rate of a ship's velocity, as indicated by the log, with notes on the state of the weather, incidents of the voyage, etc. **The** log is a little board so fixed as to remain upright and motionless in the water while the ship moves on, for the purpose of ascertaining the rate of sailing.

LONG.—A stock exchange term. One is said to be long when he carries stock or grain for a rise. **Long Measure**, measure of length. (See Weights and Measures,—Index). **Long Price**, price after the duties are paid. **Long-Boat**, the largest boat belonging to a ship of war. **Long Dozen**, one or two more than a dozen. **Long Hundred**, a term for six score, or 120. **Long Ton**, in England the ton contains 2240 pounds, and is sometimes called the long ton. In the United States the ton contains 2000 pounds, and sometimes is called the short ton. **Longshoremen**, men employed in unloading and loading vessels about docks.

LOSS.—Destruction, injury, failure, waste, leakage, or that which is lost. **Loss and Gain**, a general term used to express fluctuation in value. When applied to an account, it has reference to a collection of particular losses and gains of a business, the result of net loss or net gain being shown by either side. **An** account exhibits a loss, if that which it represents has cost more than it has produced. **An** account exhibits a gain, if that which it represents has produced more than it has cost. All accounts which show losses or gains is closed into the Loss and Gain account.

FORM OF LOSS AND GAIN ACCOUNT.

Dr.	LOSS AND GAIN.				Cr.	
1880				1880		
Feb 29	Expense,	300	00	Feb 28	Mdse.,	700	00
"	Discount,	20	10	"	Interest,	17	10
"	Insurance,	40	15	"	Real Est.,	100	00
"	Net Gain,	456	85				
		817	10			817	10

LOSS OF PROPERTY.—If one have another's property in his possession, and through his carelessness it be injured or lost, the careless one is not only entitled to no compensation for what he has done, but must compensate the owner for his loss or injury; but not if the loss occurs in spite of ordinary care. **Common** carriers are responsible for any loss or injury occurring to goods which they are transporting. **Carriers** by sea are responsible for loss or injury to goods, except damages occurring through some extraordinary peril of the sea. **If** the property of a guest is lost while he is in the hotel, unless through his own carelessness, the hotel keeper is responsible for it. (See Hotel Keeper). **For** lost property found by any one, see Lost Property under Etiquette,—Index.

LOW-WATER MARK.—That line on the sea-shore to which the waters recede when the tide is lowest.

LOYAL.—True to one's country, or faithful to a prince; legal or according to law.

LUNATIC.—The legal designation of insanity; also that state of the mind known as non compos mentis. A contract with a lunatic is void. (See Idiot). **Lurgulary**, the casting of any corrupt thing into the water.

LYNCH LAW.—Popular vengeance inflicted by a mob; the practice of inflicting an injury, or committing an outrage, upon a person, for a crime or offense, by private persons without the sanction of law. **In** England this is called Gifford Law. **The** American system of Lynch Law began in Piedmont county, Va., which was in early times the western frontier, and having no law of its own, and being seven miles from the nearest court of criminal jurisdiction, controversies were constantly refer-

red to men of sound judgment and impartiality in the district, whose decisions were regarded as final. Prominent among these was a man whose awards exhibited so much **Justice**, judgment, and impartiality, that he was known throughout the country as Judge Lynch. In the course of time criminals were brought before him, and he awarded such punishment as he considered just and proper. Judge Lynch being the most conspicuous of these arbitors, the system took his name, and was called Lynch Law. This was a compliment to his integrity and high character. Subsequently the term has been regarded as a reproach, because violent and unprincipled men, such as Judge Lynch was wont to punish, have set the law at defiance, and while inflamed with passion, have usurped the prerogatives of the courts of justice. The corruption that has found its way into the courts has doubtless made Lynch Law seem to be a necessity in many cases.

MAGISTRATE.—A public civil officer invested with executive or judicial authority; as a justice of the peace, or a governor.

MAGNA CHARTA.—The great charter of English liberty, granted by King John, June 15, 1215. It was called Magna Charta on account of its great importance in securing the liberties of the people.

MAIM.—To deprive a man of any necessary part of his body, so as to render him less efficient in fighting or defending himself.

MAIL.—Newspapers, letters, etc., transmitted in bags from one post-office to another. **Mail-bag**, a leathern bag or sack in which assorted letters, etc., are placed for a particular destination to be there distributed. **Mail-coach**, a car or vehicle for conveying mail-bags from one place to another. **Mail-train**, a fast train by which mails are carried. **Mail-carriers**, persons employed by the government to convey the mails.

MAINPRISE.—Deliverance of a prisoner, who might otherwise be committed to prison, upon security being given for his appearance at a certain time.

MAINTENANCE.—Aid, assistance, or means of support; assistance to another in a suit at law by one who has no interest in it, for the purpose of stirring up a quarrel or continuing the litigation.

MAJORES.—Male descendants beyond the sixth degree. **Majority**, the full age; more than half, as in the election of some officers a majority of all votes cast is necessary to a choice. (See Plurality).

MAKER.—In a note, the person who promises is called the maker. The person named in the body of the note is the payee. The maker may be responsible to either the payee, or to the person to whom he may transfer it. **Making his Law**, a legal phrase signifying the act of a person who wages his law.

MALEFACTOR.—One who has either committed a crime, or been convicted of having committed one. **Malfeasance**, the act of committing an unlawful deed. **Malice**, an intentional mischief done to another without cause or excuse. **Malice prepense**, deliberate, predetermined malice. **Malicious Mischief**, wanton or reckless destruction of property or injury to the person. **Malicious Prosecution**, the act of prosecuting any one in a criminal or civil suit, without just cause. **Malversation**, fraudulent practices in office or employ; as exactions, extortions, and larceny.

MANBOTE.—In Anglo-Saxon times a compensation paid to the relatives of a murdered man, by the murderer's friends.

MANDAMUS.—A writ or command issued by a court, and directed to any person, corporation, officer, or inferior court, requiring them to do some particular thing. Its chief use is to enforce the performance of public rights or duties. **Mandate**, a summons, or judicial charge, command, or commission.

MANIFEST.—A particular account of a ship, with the list of the names of the passengers, a description of the cargo, number, and marks of the packages, etc., with the ports of destination, made out and signed by the master before leaving port, to be exhibited at the Custom House. Also applied to railway shipments, as an invoice.

FORM OF MANIFEST.

MANIFEST No. 976.
Pittsburg, Pa., May 1, 19...
SHIPMENT COAL BY BOYD, FOX & CO., Miners Anthracite Coal.
For Ward & Howe, Oswego, N.Y.

DATE.		CAR.		ANTHRACITE.							
		NO.	LETTERS	GRATE.		EGG.		NUT.		STOVE.	
				T.	CWT.	T.	CWT.	T.	CWT.	T.	CWT.
19											
Feb.	17	1918	C.R.I.S.					16	58		

MANIFESTO.—A public written declaration of motives or intentions, by the authorities of a nation, particularly before commencing a war, assigning reasons for its public acts.

MANIFOLD WRITER.—A copying book, the sheets composing which, being covered with a preparation of plumbago, and inserting between them blank paper, and writing thereon with a style, several copies of the writing may be obtained at once.

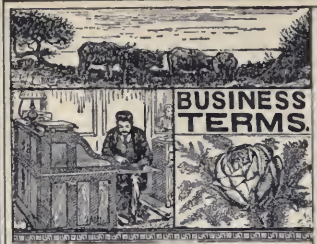
MANSLAUGHTER.—The unlawful killing of any person, in sudden heat or excitement, and without malice. **Man-slayer**, one who kills another unintentionally and without malice. **Man Stealing**, an expression sometimes used in place of kidnapping. **Manucaptor**, one who stands bail for another.

MANUFACTURER.—One who works raw materials into articles suitable for use. **Manufactures**, wares and articles which have undergone the processes which prepare them for use.

MANUMIT.—To release from slavery, or from the power of another.

MARGIN.—Money deposited with a broker, in stock transactions, to protect him against loss by the depreciation of stocks held by him for another party. Also the difference between the value of securities deposited as collateral, and the amount loaned upon them.

MARINE INSURANCE.—A contract to pay the owner of certain property a certain proportion of his loss if it is damaged or destroyed while on the sea. The time of the insurance is sometimes specified, as for a year. Vessels are often insured in this way. Sometimes it is for a particular voyage, without reference to time. Both vessels and goods may be insured in this way. Another way in which goods may be insured is to specify a time, as a year, the policy to cover all goods shipped during the period of time. Such a policy is called an open policy. The risks assumed in the policy are those of the perils of the sea, fire, piracy, capture, general average, and salvage. Unless otherwise provided, the policy is valid, whether the premium is or is not paid when due. The premium is said to be earned if the vessel or the goods are upon the sea during any part of the time mentioned in the policy. If not earned the premium need not be paid. If not provided for in the policy, in case of change of ownership, the new owners should obtain the consent of the company, or the policy will be void. Except from necessity, if a vessel deviate (change its risk) from the specified voyage, the policy is rendered void. The amount of insurance to be paid in case of damage or loss, is that proportion of the loss which the amount of the policy bears to the value of the property insur-



ed. Consequently the company does not pay the whole of any loss, unless the amount of the policy equals the value of the property. **Policies** may be obtained in several companies, but then each company pays only its proportion. Sometimes the place for valuation in a policy is left blank, and the value determined at the time of the loss; if the value is inserted, that controls, and it is called a valued policy. Misrepresentations render a policy void. Additional or minor agreements are inserted in almost all policies. Seaworthiness of the vessel is always an implied condition. "Lost or not lost," occurring in a policy, means that the company will pay the insurance, even if the property is already lost at the time the contract is made. Abandonment is the right of the insured to give up to the company what remains, (provided the loss is more than half in value of the property) and claim the full amount of the policy.

FORM OF MARINE INSURANCE POLICY.

No. 75,273.

BY THE ATLANTIC INSURANCE COMPANY, OF BOSTON.

Geo. C. Howe, on account of whom it may concern, in case of loss to be paid in Boston in funds current to him, does make insurance and cause.....

AGGREGATE INSURED, $5000. to be insured, lost or not lost, at and from Boston to Liverpool.....on 1200 bbls. flour.....laden, or to be laden on board the good ship called the...Hudson.....

PREMIUM, $65.50.

The said goods and merchandises hereby assured are valued (premium included) at $5000.

Touching the adventures and perils which the said assurer is contented to bear and take upon itself in this voyage, they are of seas, men-of-war, fires, enemies, pirates, rovers, thieves, jettisons, letters of mart and countermart, reprisals, takings at sea, restraints, arrests, and detainments of all kings, princes, or people of what nation, quality, or condition soever, barratry of the master and mariners..... having been paid the consideration for this insurance, by the assured at and after the rate of one and a quarter per cent.....

Provided always, and it is hereby further agreed, that if the said assured shall have made any other assurance upon the premises aforesaid, prior in day of date to this policy, then the said assurer shall be answerable only for so much as the amount of such prior assurance may be deficient towards fully covering the premises hereby assured.....And in case of any insurance upon the said premises subsequent in day of date to this policy the said assurer shall nevertheless be answerable for the full extent of the sum by it subscribed hereto.....Other insurance upon the premises aforesaid of date the same day as this policy shall be deemed simultaneous herewith; and the said assurer shall not be liable for more than a ratable contribution in the proportion of the sum by it insured to the aggregate amount of such simultaneous insurance.....

(Other minor clauses usually follow here.)

In witness whereof the attorneys of the Atlantic Insurance Company have subscribed their names and the sum insured, at Boston, this...23rd...day of...November...19...

($5000). Five thousand dollars.

...MAXWELL & CODY,....
Attorneys.

MARITAGIUM.—An allowance or portion given with a daughter in marriage.

Marital, pertaining to a husband.

MARITIME LAW.—Law relating to harbors, ships, and seamen.

MARK.—A device, number, or letter put upon boxes or packages shipped, or upon manufactured goods, to distinguish them from others.

MARKET.—A public place or building for buying and selling; exchange, purchase, and sale; as, an active or a dull market. **Market-gardener**, one who raises vegetables and fruits for sale. **Market-overt**, an open or public market. **Mart**, a place of sale or traffic.

MARKING GOODS.—It is usual with merchants in marking their goods, to make use of a private mark, phrase, or key-word, to designate the cost and selling price, the object being to conceal these points from all except their own salesmen. The following words and phrases present a choice from which to make a selection:

Gas Fixture.	Fish Tackle.	Brown Sugar.
Cumberland.	Blacksmith.	Republican.
Black Horse.	Cash Profit.	Now be Sharp.
Perth Amboy.	Fair Spoken.	Noisy Table.
Misfortune.	So Friendly.	Elucidator.
Importance.	Gainful Job.	Of Industry.

Each word or phrase contains ten letters, no two alike, the object being to use letters instead of figures in marking the goods. As an example take the phrase GAS FIXTURE.

1 2 3 4 5 6 7 8 9 0

In marking the cost and selling price on a ticket, we assume that the cost is $3.25, and the selling price $4.37; this would be represented by the dumb letters sai—ist. The cost price is usually placed uppermost on the tag, the selling price below it, thus $\frac{sai}{ist}$. An extra letter, styled a repeater, is used to obviate the repetition of a letter or figure, as well as to prevent the disclosure of the private mark; for instance, instead of writing 366 by the key-word, which would be sxx, use as a repeater the letter o, and make it read sxo. Fractions may be written thus: $4.56\frac{3}{4} = 4\frac{3}{4} \times 2\frac{3}{4}$. It sometimes happens that the selling price contains three figures, while the buying price contains but two. To prevent this difference from being noticed, the letter denoting the cipher is prefixed to the buying price. A sentence containing ten words may be used instead of a word or phrase, and the initial letters of the words taken, thus: In walking down Broadway James sees many very curious things. Instead of letters, arbitrary signs may be used, thus:

1 2 3 4 5 6 7 8 9 0

MARQUE AND REPRISAL.—Same as Letter of Marque, which see.

MARRIAGE ARTICLES.—An agreement between parties who contemplate marriage, and in accordance with which the marriage settlement is afterwards drawn up. **Marriage Brokage**, the act by which a person, for a consideration, negotiates a marriage between a man and a woman. (See Promise of Marriage and Putative Marriage). For Marriage License, Form of Ceremony, etc., see under Love Letters,—Index.

FORM OF MARRIAGE CERTIFICATE.

STATE OF..... .....COUNTY.

—THIS CERTIFIES—

That.....of.....in the State of.....and.....of .....in the State of.....were at.....in the said County, by me joined together in

—HOLY MATRIMONY,—

On the.....day of.....in the year of our Lord, One Thousand Nine Hundred and.....

In presence of } .....
.....

FORM OF MARRIAGE NOTICE.

MARRIED.

LISTON—MILLER.—In this city, at the residence of the bride's father, October 17, 19...., by the Rev. George Baker, rector of Christ Church, Mr. John Liston and Miss Mary B. Miller, daughter of Isaac Miller, Esq., all of Atlanta.

MARRIED WOMAN'S NOTE.—

$200. New York, Feb. 13, 19...

One year after date...I...promise to pay Wood & Lorin, or order,...Two Hundred... Dollars, with interest. And I hereby charge my individual property and estate with the payment of this note. ...ELLA C. BARD.

MARRIED WOMEN.—Formerly married women could make no contracts whatever, but now, in most States, they may (1) Make any contract connected with property which they own separately, but not otherwise, except in connection with their separate business (2) They may carry on a business apart from their husbands, and bind themselves by any contracts connected therewith. A woman having no husband, whether married or single, can make contracts as freely as a man. Married women may act as agents for others, even in making contracts. In buying articles necessary for themselves or the household, they may not be sued for payment, but their husbands may be. Also when employed as clerks or otherwise, employers are bound by their acts. In a few States a married woman cannot become a member of a partnership.

MARSHALLING OF ASSETS.—Such an arrangement of the different funds under administration, as shall enable all persons having equities to receive their share, notwithstanding any intervening interests or claims.

MARTIAL LAW.—Military rule existing in time of war. It supersedes civil proceedings which conflict with it.

MASTER OF CEREMONIES.—An officer whose duty is to determine the forms to be observed, and superintend their observance during a public occasion. **Master in Chancery**, a clerk in the court of chancery, who acts as assistant to the chancellor. **Master of the Rolls**, an officer of chancery who has the keeping of the rolls and grants which pass the great seal, and the records of the chancery.

MATTER OF FACT.—In legal actions, matter, the truth of which is determined by the evidence, and left to the jury to decide. **Matter of Law**, matter, the truth or falsity of which is determined by the established rules of law, or by reasoning based upon them, the decision in these matters is referred to the judge. **Matter of Record**, facts which may be proved by the production of a record.

MATURITY.—Arrival of the time fixed for the payment of a debt; becoming due; termination of the period which a demand has to run; state of perfection or completeness, as of age or experience. Sometimes the holder of paper has a right to demand payment before maturity, as when a draft has been protested for non-acceptance, and the proper notices served, the holder may at once proceed against the drawer and endorsers. Legal holidays are uniformly excepted in the maturity of commercial paper. Where grace is not allowed, paper falling due on a holiday becomes legally due the day following; but where grace is allowed, on the preceding day.

MAXIM.—An established principle or leading truth. (See Business Maxims).

Mayhem, unlawfully depriving another of a member proper for fight or defense. **Mayor**, the chief magistrate of a city. **Mayor's Court**, the name of a court, usually held in cities, consisting of the mayor, recorder, and aldermen.

MEASURE.—The contents or dimensions of anything, reckoned according to some standard. (See Weights and Measures,—Index). **Measure of Damages**, a method or rule by which the damage sustained is to be estimated or measured. **Measurement Goods**, goods on which freight is charged by measurement.

MEDIATOR.—Upon differences arising between merchants, a person who interposes and assists them in adjusting their difficulties.

MEDICAL EVIDENCE.—Evidence or testimony given by physicians or surgeons as professional experts. **Medical Jurisprudence**, the application of medical science to the determination of certain questions in courts of law.

MEMORANDUM.—A note or record of something intended to assist the memory; an informal writing of some transaction, or an outline of some intended action or instrument. **Memorandum Check**, a check given as an acknowledgment of a debt, with the understanding that it will not be presented at the bank unless the maker fails to take it up on the day the debt becomes due. It usually has Mem. written on its face.

FORM OF MEMORANDUM.

FROM	TO
MORSE & CAYLOR, Columbus, O. 17 C Street.	...Nunley & Barnes, ...Gettysburg... ...Pa...
Drawee by Bond...	COLUMBUS, Feb'y ... 19...

Gentlemen:—On February 15th we propose making three days' sight draft on you, favor First National Bank, for Six Hundred ($600) Dollars, on account, which please protect and oblige,

Yours very respectfully,

MORSE & CAYLOR.

MEMORIAL.—A written address of solicitation or complaint; a state paper or note in which there is neither subscription nor address,—much used in negotiations. (See Petition).

FORM OF MEMORIAL TO CONGRESS.

TO THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES, IN GENERAL ASSEMBLY CONVENED:

The Executive Committee..... .....were charged with the duty of preparing and presenting to the Congress of the United States a memorial.....(Here insert whatever it is desired to invite attention).

_____,	_____	_____,
_____,	_____	_____,
SECRETARY.	_____	_____,
		COMMITTEE.

MEMORY OF MAN.—Legally, the memory of man is supposed to extend back to the time of Richard I., A.D. 1189; but proof of a regular usage for twenty years, not explained or contradicted, was evidence upon which many public and private rights were held, and sufficient for a jury in finding the existence of an immemorial custom.—Pelowbet. **Menace**, a threat to injure another.

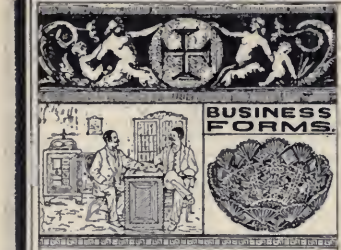
MERCANTILE AND COMMERCIAL. Mercantile applies to the sale of merchandise and goods when brought to market. Commercial is the wider term, and relates to the freighting, shipping, forwarding, and other business connected with the commerce of a country, whether internal or external. The terms are often used interchangeably. **Mercantile Agency**, an agency the purpose of which is to procure information relating to the standing and credit of country merchants, for the use of city merchants or others with whom they deal. **Mercantile Letters**, for a variety of forms of these see Business Letters,—Index. **Mercantile Paper**, acceptances or notes given by merchants for goods bought or received on consignment. This term is contradistinctive from accommodation paper, which see.

MERCHANDISE.—A general term for goods bought and sold by merchants. In the merchandise account merchandise is Dr. for its cost, and Cr. for the receipts from sales. When the Cr. side of the account is in excess, the difference represents profit; if the Dr. side be in excess, a loss. **Merchandise Broker**, an agent employed to make contracts in the sale of merchandise.

FORM OF MERCHANDISE ACCOUNT.

Dr. MERCHANDISE. Cr.

Feb.	1	To A.S. Cox,	400 00	Feb.	2	By Cash,	16 00
"	3	" Cash,	4 00	"	5	" Bills Rec.	21 00
"	7	" Bills Pay.	44 00	"	10	" S. Coan,	3 00
"	12	" H. Chum,	125 00	"	15	" Cash,	10 00
"	17	" Bills Pay.	50 00	"	17	" J. Coats,	10 00
"	28	" Loss and Gain,	8 00	"	19	" Cash,	72 00
				"	21	" Bills Rec.	21 00
				"	27	" Cash,	8 00
				"	28	" Inventory	470 00
			631 00				631 00



FORM OF MERCHANDISE BROKER'S CONTRACT.

MEMORANDUM GIVEN TO THE SELLER.

Chicago, Feb. 1, 19...

Messrs. Sontag & Evans, 17 Broadway:

We have sold to-day on your account to L. S. Whitney, 149 West Harrison Street, the following goods: 2000 ounces Sulphate of Quinine A. and H. at $2.75 per ounce.

Respectfully,

COLLINS & DARBY,
Brokers.

MEMORANDUM GIVEN TO THE BUYER.

Chicago, Feb. 1, 19...

Mr. L. S. Whitney, 149 W. Harrison St.:

We have to-day bought for your account, from Sontag & Evans the following: 2000 ounces Sulphate of Quinine A. and H. at $2.75 per ounce.

Respectfully,

COLLINS & DARBY,
Brokers.

FORM OF MERCHANDISE NOTE.

$1000. Denver, Oct. 3, 19...

For value received, on or before the ...first... day of ...March... next, we promise to pay ...J. H. Gunn & Co... or order, —One Thousand— Dollars, in good merchantable White Wheat, at our warehouse in this city, at the market value on the maturity of this note. COTTER & SMITH.

MERCHANT.—Generally, any person who buys and sells goods. In some places the term is not applied to shopkeepers and small dealers. In some countries the term is applied only to those engaged in foreign commerce. **Merchantable**, fit for market; such as may be bought and sold in market at current prices. **Merchant Marine**, a term signifying, collectively, the vessels, ships and steamers licensed and registered by any government to engage in commerce. **Merchant Service**, the general management of navigation and shipping employed for commercial purposes. **Merchant's Exchange**, the place of meeting of the merchants of large cities, where business is transacted at certain hours, and where the latest information regarding shipping prices and news is to be obtained. **Merchant Ships**, trading ships, or those carrying passengers or cargoes, or both.

MERGER.—The absorption of a lesser thing into a greater, as where a greater estate and a less coincide and meet in one and the same person.

MESNE.—Middle or intervening,—applied to a writ or process issued during the progress of an action. **Mesne Profits**, the profits of land while held by a wrong owner.

MESSAGE.—A formal official communication, as of the President to Congress, or a Governor to a State legislature. In the Governor's message is given information of the condition of the affairs of the State, and such recommendations as the Governor judges necessary and expedient. The President's message is sent to Congress at every session, and its chief contents are recommendations of the passage of such measures as he deems expedient.

MESSUAGE.—A dwelling-house with the adjoining buildings belonging to it; a tenement.

METALLIC CURRENCY.—The silver and gold coins forming the circulating medium of a country.

MILEAGE.—An amount allowed by law to officers and witnesses, as a compensation for trouble and expense when traveling on public business, or to attend a trial.

MILITIA.—All the able-bodied men in the nation (between certain ages, and not included in the standing army), and liable to be called into service in time of war or insurrection. In the United States the ages are from 18 to 45. Those who are exempt are, generally, members of the state legislative, executive and judicial departments, clergymen, firemen, teachers, physicians, and members of military companies who have served a certain time; and in many States those who have conscientious scruples as to whether war is ever right, such as the Quakers. Members of the national legislative, executive and judicial departments, pilots, mariners, and a few others, are exempt. In most of the States there are volunteer companies or regiments, called the national guard, or, popularly, the militia. These organize themselves, elect their own members and officers, select their own uniform, and the branch of the service to which they will attach themselves. The State usually grants them more or less aid, in the way of arms, armories, etc. **Military Law**, rules and regulations for the government of an army.

MINORITY.—The condition of a minor, (See Infant); the lesser number.

MINT.—A place under governmental supervision where money is coined. **Minute Book**, a book kept by the clerk of a court, or other organized body, in which minutes of its proceedings are entered. **Misadventure**, the accidentally injuring of another, when a man is doing a lawful act.

MISCARRIAGE.—The act of expelling the ovum from the uterus within the first six weeks from conception. If between that time and the end of the sixth month, it is called abortion. If delivery is after the sixth month, it is called premature labor. In law all are termed miscarriage.

MISDEMEANOR.—Any crime less than a felony. **Mise**, expenses used in the entries of judgments, in personal actions; an issue in a writ of right. **Misfeasance**, a trespass or misdeed. **Misjoinder**, the improper uniting of parties or causes in one suit. **Miskenning**, a variance in a plea, or a wrongful citation. **Misnomer**, a wrong name. **Mispleading**, the act of omitting something essential in a pleading. **Misprision**, the concealment of a crime; any misdemeanor which has not a specific name given it by the law. **Misreading**, an incorrect reading; as when a deed is incorrectly read to a blind or illiterate man. **Misrecital**, in a plea or an agreement, the incorrect recital of a matter of fact. **Mistake**, an unintentional or negligent error in a record, contract, or deed. In contracts, the law does not allow for any mistake of which one or the other parties is ignorant. Every one must know at his peril the language used, its meaning, and its legal effect. It is a general principle that money paid under a mistake must be refunded.

MITIGATION.—Abatement of anything penal, harsh, or painful, the lessening of the amount of a judgment.

MIXED ACTION.—An action combining a real with a personal action, as where real property is demanded in conjunction with damages for a wrong sustained. **Mixed Fabrics**, those fabrics composed of two or more kinds of fibers, the principal ones being flax, cotton, silk, wool, alpaca, mohair, and jute. **Mixed Larceny**, compound larceny.

MODIFICATION.—The act of changing, or giving new forms or meanings; as, the modification of a contract. The fundamental rule of law is that every one must fulfill every agreement he makes. If two parties make an agreement, and afterward modify it, the first as modified by the second must be kept.

MONEY.—A recognized measure of value, as a coin, stamped by the government. It is the creation of law, and born of necessity for something that will facilitate commerce or wholesale barter. **Money Market**, those conditions which regulate the value in which the various moneys of account are held. **Money of Account**, the denomination in which accounts are kept, as whether in dollars, in pounds sterling, or in

some other denomination; the standard by which values are measured.—**Money Order**, an order drawn on a third party requesting him to pay to the person named a certain sum of money. It is not negotiable.

FORM OF MONEY ORDER.

OMAHA, APRIL 28, 19...

MESSRS. OWEN, PIXLEY & Co.,
Gentlemen:—Please pay to...H.B. CORBETT..., or order,—One Hundred—Dollars, and charge to my account.
$100.00. ...M.P. CRAWFORD...

Money Counts, the common counts in an action of assumpsit at common law. **Money of Adieu**, earnest money. (See Coin, Legal Tender, Paper Money).

MONARCHY.—The form of government in which the supreme power is in the hands of one person called a monarch. It is a general name for a single ruler, whether he is called a king, emperor, or prince. If all the power reside in one person, it is called an absolute monarchy. (See Government).

MONITION.—Instructions having the nature of a summons, used in the civil law. **Monomania**, insanity upon one particular subject only.

MONOPOLY.—The sole right to make or sell a certain article, or to deal in any species of goods, or to deal with a country or market, obtained either by engrossing the articles in market by purchase, or by a license from government.

MONTH.—In business transactions, the word month is considered a calendar month, and extends to the same day in the following month. A month from Feb. 27th extends to March 27th, but a month from Feb. 28th (or 29th in leap years) extends to March 31st; always from the last day in any one month to the last day in the following month. In computing interest the month is considered 30 days, except in accurate interest.

FORM OF MONTHLY STATEMENT.

MONTHLY STATEMEMT.

CINCINNATI, JULY 31, 19...

MESSRS. C.S. HALEY & Co.,
To M. D. HEALOR & Co., Dr.

19... Jan.	4	To Mdse. as per Bill rendered @ 3 mos.	$75	00
"	10	" " " " 3 "	132	00
"	21	" " " " 60 da's.	318	00
"	30	" " " " 3 mos.	123	75
			$648	75

MOOT.—To argue or plead on a supposed cause by way of exercise and practice. **Moot Court**, a court where moot questions are argued.

MORTGAGE.—A conveyance of real estate by a debtor to his creditor, as a pledge or security for the payment of a sum of borrowed money. The person owning the property and giving the pledge is called the mortgagor. The person lending the money, and receiving the pledge is called the mortgagee. It is different from a pledge (of personal property), which see. When a mortgage is given, it is usual for some instrument, as a bond or note, to be given to represent the loan. A mortgage is good without a bond or note, provided a real debt exists. The main clauses in a mortgage and deed are the same; but there is one important difference, viz., that in the mortgage there is an additional clause, providing that the grant shall be of no effect if the money is paid. A mortgage must contain all the essentials of a deed; it must be delivered, and ought to be acknowledged. The foreclosure of a mortgage is the method by which the land is appropriated to satisfy the debt, and results in depriving the mortgagor of his ownership. The usual method of foreclosing a mortgage is for the mortgagee to bring a suit, in the course of which it is decreed that the property be sold. Mortgages and deeds should be recorded in the County Recorder's Office, in order to prevent fraud, by affording a way by which any one who intends to buy land, can ascertain whether the seller has the right to sell. (See Recording).

FORM OF MORTGAGE.

THIS INDENTURE made the ...10th... day of...June..., 19..., between...H. S. LANGWORTHY... of...Helena, Mont. of the first part, and...GEORGE FOX... of...the same place.., of the second part, witnesseth: That the said party of the first part, in consideration of —Five Thousand— Dollars to him paid, the receipt whereof is hereby acknowledged, hath granted, bargained, sold, released, and conveyed, and by these presents does grant, bargain, sell, release, and convey to the said party of the second part, and his heirs and assigns forever, all that (here describe property), with all hereditaments and appurtenances thereto appertaining.

To have and to hold the said premises, with the appurtenances, to said party of the second part, his heirs and assigns, to his and their use and behoof forever. Provided always, and these presents are upon conditions, that if said party of the first part, his heirs or assigns, shall pay to the said party of the second part, his executors, administrators, or assigns, the sum of —Five Thousand— Dollars, on or before the...10th...day of...June ...19..., with interest, according to the condition of a bond (or a note) of the said...H. S. Langworthy....to the said...George Fox..., bearing even date herewith, then these presents shall be void.

But upon any default in the payment of the money above mentioned, or of the interest thereon, said grantee, his executors, administrators or assigns, may sell the above granted premises, with all improvements that may be thereon, at public auction in said ...Town of Helena,...first publishing a notice of the time and place of sale once each week for three successive weeks, in one or more newspapers published in said...Town of Helena; and in his or their own name or names as the attorney of the said grantor, may convey the same by proper deed or deeds to the purchaser or purchasers, absolutely and in fee simple; and such sale shall forever bar the grantor, and all persons claiming under him, from all right and interest in the granted premises, whether at law or in equity. And out of the money arising from such sale, the said grantee or his representatives shall be entitled to retain all sums then secured by this deed, whether then or thereafter payable, including all costs, charges and expenses incurred or sustained by reason of any failure or default, on the part of the said grantor or his representatives, to perform and fulfill the condition of this deed, or any covenants or agreements herein contained; rendering the surplus, if any, together with an account of such costs, charges, and expenses, to the said grantor, his heirs or assigns.

And it is agreed, that said grantee, his administrators, executors, or assigns, or any person or persons in his or their behalf, may purchase at any sale made as aforesaid, and that no other purchaser shall be answerable for the purchase money; and that, until default in the performance of the condition of this deed, the grantor and his heirs and assigns may hold and enjoy the granted premises and receive the rents and profits thereof.

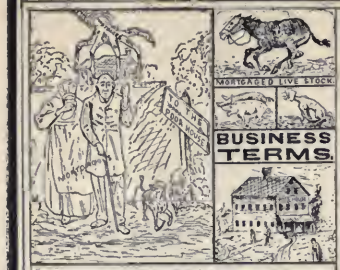
And, for the consideration aforesaid, I...Helen R. Langworthy...wife of the said...H. S. Langworthy...do hereby release unto the said grantee and his heirs and assigns, all right of both dower and homestead in the granted premises.

In witness whereof, the parties of these presents have hereunto set their hands and seals, the day and year above written.

...H. S. LANGWORTHY....[L.S.]
...HELEN R. LANGWORTHY.[L.S.]

Signed, sealed, and delivered in presence of
...CHARLES WOOLFORD...

[Witnessed and acknowledged like any other deed.]



FORM OF MORTGAGE NOTE.

$1000. TOLEDO, MARCH 13, 19...

One year after date I promise to pay...JAMES FORKNER...,—One Thousand—Dollars, at the First National Bank of Toledo, Ohio, with interest at the rate of...six...per cent per annum, for value received. This note is secured by a mortgage of even date herewith, on a certain tract or parcel of land situate (here describe the land).

...JONATHAN GORDON...

FORM OF RELEASE OF MORTGAGE.

This debt, secured by the mortgage dated the...10th...day of...June, 19..., and recorded with mortgage deeds volume...10..., page...176..., has been paid to me by...Enoch Dennis..., and in consideration thereof I do discharge the mortgage, and release the mortgaged premises to said...Enoch Dennis...and his heirs.

Witness my hand and seal this..19th... day of...June....19...

...HORACE MANN...[L.S.]

Executed and delivered in presence of } ...CALVIN GOSS....

CITY OF DAYTON, } State of Ohio, } June 19, A.D. 19...

The said...Horace Mann... acknowledged the foregoing instrument to be his free act and will,

Before me,

CLARENCE BISHOP,
Clerk of Circuit Court.

FORM OF ASSIGNMENT OF MORTGAGE.

I hereby assign the above (or within) mortgage to...Charles Wesley...

Witness my hand and seal this..1st... day of...November....19...

...WILLIAM JONES...[L.S.]

FORM OF NOTICE OF MORTGAGEE'S SALE.

By virtue of a power of sale contained in a certain mortgage deed given by ...Elmer Gates...to...Clyde Kimball..., dated...May 10..., 19..., and recorded with mortgage deeds volume...13...page ...216..., will be sold at public auction upon the premises (or at the office of...S. D. Keyes..., No...156 Market...Street..., Cleveland, Ohio,) on...Monday...the...5th... day of...July...19...at...11...o'clock in the forenoon, all and singular the premises conveyed by said mortgage deed, namely: (here describe property).

...JOHN BOND..., Assignee of said mortgage.

MOTION.—A proposal made at an assembly or meeting; an application made to a court by one of the parties, or his counsel, in order to obtain some rule or order, which he thinks necessary in the progress of a suit.

MOVABLES.—That property, of whatever kind, which attends a man's person wherever he goes, in contradistinction to things immovable.

Mulct, a fine of money, or penalty.

Mulier, a wife; a virgin; a woman in general.

Multitude, the precise number has never been fixed by law, but according to some authorities all above ten persons.

Multure, the toll that a miller takes for grinding corn.

MUNICIPAL.—Of or pertaining to a city. **Municipal Courts**, courts established in the larger cities and villages, having jurisdiction of offenses committed in violation of city ordinances. They may also try civil and criminal cases. These courts usually consist of one judge elected by the people of the city.

MURDER.—The killing of a human being deliberately and maliciously, and with the intent to effect the death of the individual; or the killing of a person in committing some other crime, and not with a design to effect death. The former is designated murder in the first degree, and the latter, second degree. **Murdrum**, the killing of another in a secret manner.

MUTE.—When a prisoner, while being arraigned, either cannot speak, or refuses to do so, he is said to stand mute. **Mutiny**, a sedition, revolt, or insurrection against a constituted authority, especially military or naval authority.

MUTUAL INSURANCE COMPANY.—A company in which the profits, after deducting the expense of the business, are divided among the insured, or so applied in renewal of insurance, in reduction of premiums, that the insured pays only for the amount of his actual risk, in theory. **Mutuality**, acting in return, or a reciprocity. **Mutuum**, a loan of such nature as to be consumed by the borrower, and to be returned to the lender in the same kind and quantity.

NAME.—The designation of a mercantile house or firm. The firm name under which a business has grown up being valuable, it is often continued for years after the individuals who composed the firm have ceased to have any pecuniary interest in the business.

NATION.—A body of persons living within a certain territory under a sovereign government organized for the purpose of administering universal justice. **National Banks**, banking institutions established under the provisions of an act of Congress, the object of which is to unify the currency. When banks are organized under this act, they can issue their individual notes only upon the basis of United States bonds deposited in the archives of the United States Government. The chief officer of the department of the United States Treasury has general supervision over all National Banks, attends to the printing, registering and issuing to them, of their circulating notes and orders, and receives their periodical reports. **National Guard**, see under Militia.

NATURAL CHILDREN.—Children born out of lawful wedlock; those by procreation as distinguished from children by adoption. **Natural Law**, see Law of Nature. **Naturalization**, the act by which an alien is made a citizen. The process of naturalization consists of two steps: (1) The declaration of intention to become a citizen of the United States. This must be made on oath before a circuit or district court of the United States; or before a State court of record having common law jurisdiction, a clerk, and a seal; when a certificate is given to the person. (2) At least two years must elapse before the second step,—the oath of allegiance. The person must prove by witness upon oath, that he has resided in the United States at least five years, and in the State in which he wishes to be naturalized at least one year; and that during this time he has borne a good moral character, and has been well disposed toward the Constitution and government. He then makes a written declaration, and supports it by oath, that he renounces allegiance to all foreign powers, and that he will support the Constitution of the United States. A certificate of citizenship is then given him by the court.—**Natural Liberty**, the freedom to exercise our natural rights without any restraint. **Natural Rights**, freedom to gratify one's inclinations to the fullest extent, is supposed to represent the condition of men without society. It exists only in theory.

NAVIGATION.—Navigable waters are all those capable of floating vessels, boats, logs, rafts, or any products of the country through which they flow. They are subject to the use of the public, as navigable highways, the soil beneath them remaining the property of the riparian proprietors, or the State. **Navigation Laws**, those laws which provide for light-houses, buoys, signal stations, and life-saving stations along the coast; improving harbors, prescribing the number of passengers to be carried, quarantine, etc.

BUSINESS FORMS.

NAVY.—The whole of the ships of war belonging to a ruler or nation, considered collectively. **In** time of peace, of the United States Navy, a part of the vessels are at the navy-yards, and the others are stationed in the different waters of the globe, to protect the interests of the United States, and the persons and property of her citizens. Ocean surveys are also made, to aid in the construction of charts.

NECESSARIES.—Such things as are proper and essential for the sustenance of a person. The necessaries for which a minor may bind himself by contract, are all things essential or appropriate for the sustenance or convenience of the minor in his way of life. Necessaries include food, clothing, lodging, medicine, and education.

NEGATIVE AVERMENT.—An averment in the pleadings of some case, in which a negative is asserted. **Negative Pregnant**, the negation of one thing which implies the affirmation of another. **Negligence**, the habit of omitting to do things which ought to be done. **The** question of negligence is generally one of fact for a jury. (See Gross Negligence). **Negligent Escape**, the escape of a prisoner from the custody of a sheriff or other officer, without consent.

NEGOTIABLE.—A term applied to a contract, the right of action on which is capable of being transferred by delivery, or indorsement and delivery. **Negotiable Paper**, notes, drafts, and other written obligations which are transferable and pass readily from hand to hand. **Negotiable Note**, an ordinary promissory note, on which a right of action passes by its assignment by mere endorsement. **Negotiable Securities**, all kinds of instruments which are evidences of indebtedness, besides commercial paper, negotiable in form. **Negotiable Words**, the words order and bearer are called negotiable words, because the use of one of them is necessary to confer negotiability. **Negotiate**, to transact or arrange business; to treat with others in regard to public affairs or private matters. **Negotiability**, the quality of being salable in the market without difficulty; the quality in commercial paper of being enforceable by one person who receives it under certain circumstances, even though not enforceable by the one from whom he receives it. **The** following are the conditions of negotiability: **I.**—As to **Form**: (1) Certainty of DATE OF PAYMENT. (2) The words ORDER OR BEARER. (3) Payable UNCONDITIONALLY. (4) Payment in MONEY. (5) Certainty of AMOUNT. **II.**—As to **Manner** of transfer: (1) If payable to bearer, either originally, or by blank endorsement, no condition. (2) If payable to order, must be endorsed by one to whose order payable. **III.**—As to **Time** of transfer: Must be before maturity. **IV.**—As to **Consideration** for transfer: There must be consideration. **V.**—As to **Knowledge** of defect: There must be no knowledge, except in accommodation paper.

FORM OF NEGOTIABLE NOTE.

$400. NEW YORK, Nov. 3, 18..

Three months after date...I... promise to pay...BENJAMIN SMITH..., or order, ——FOUR HUNDRED——Dollars, value received.

...LEWIS MANSFIELD...

NET (or NEAT).—Clear of all charges; the exact weight or amount after all deductions are counted out. **Net Proceeds**, the amount or sum which goods produce after every charge is paid. **Net Profit**, the profit after deducting all expenses. **Net Sum**, the sum remaining after all proper deductions are made. **Net Weight**, the weight of merchandise after allowance has been made for the casks, bags, or any enclosing material.

NEUTRALITY.—The state of being neutral, or not taking any part with either side; as, when two nations are at war.

NEW ASSIGNMENT.—In a legal action, the new statement of a cause, in which the plaintiff assigns a fresh his ground of complaint, with more certainty and particularity than he had previously done in the declaration. **New Style**, the Gregorian or present method of reckoning time, as distinguished from Julian method or Old Style. **New Trial**, in a suit at law, the rehearing of the parties, upon disputed facts, before another jury, granted by the court, on motion of the dissatisfied party.

NEXT OF KIN.—The nearest in relationship, whether of consanguinity or affinity; and to whom, by the statute of distribution, the personal estate of the deceased would descend.

NOMINAL.—Existing in name only. **Nominal Damages**, when a loss or injury is not serious, or where rights have been invaded, but no loss shown, a small sum awarded the plaintiff. **Nominal Plaintiff**, one who is named as plaintiff in an action, but who has no interest in it.

NOMINATIONS.—The constitution and laws of the several States prescribe minutely the mode of selecting the various officers; but the selection of candidates is left to be determined by political parties into which the people are divided, and by them the whole matter is systematized. Each party has a State committee to look after the general interests of the party and to promote its success. There is also a committee in each county; in each township, city and ward in the county; and in each representative and senatorial district. **The** State committee issues a call for a convention to nominate candidates for the State offices. **Upon** receiving this notice, the local committees issue calls for caucuses. These are meetings of the voters of a party in a township or ward, for the purpose of choosing delegates to the convention, or of nominating candidates for local offices. **Sometimes** the delegates to the State convention are chosen at a county convention, which may be a mass convention of all the voters in the party in the county, or composed of delegates from the wards and townships. **The** delegates from all the counties meet at the appointed time and choose candidates for all the State offices that are to become vacant at the end of the official year. National and most judicial and county officials are similarly nominated. (See Platform).

NON-ACCEPTANCE.—The refusal of the drawee to accept a draft, which is then said to be dishonored. It should be at once protested, and notice sent to all the parties who are liable. The protest should be made by a notary public; but in his absence, any respectable citizen can make the protest. (See Protest). **Non-Age**, in some cases under twenty-one years of age, and in others fourteen or twelve years. **Non-Claim**, the neglect or omission to make a claim by one entitled to it, within the time limited by law. **Non-Combatants**, citizens of belligerent nations who take no part directly in carrying on the war. **They** are not subject to capture or molestation, and their property cannot be legally taken, though sometimes when necessary for the support of an army, the inhabitants may be compelled to give up the property wanted at a fair value, and in extreme cases without compensation. **Non-feasance**, the non-performance of some act which ought to be done. **Non-Interest-Bearing Note**, a note which does not bear interest until after maturity, or in case of a demand note after demand. **Non-joinder**, a plea in abatement, for the omission of one or more persons as co-plaintiff or co-defendant. **Non-jurors**, all persons refusing to take the oaths required by law, for the support of the government. **Non-speculative Accounts**, accounts that from their nature, have neither loss nor gain connected with them, unless

it arises incidentally; as, Cash, Bills Receivable, Bills Payable, Personal Accounts, etc.

Nonsuit, a judgment given against a plaintiff, when he is unable, or refuses or neglects to go on with his suit after issue has been taken.

FORM OF NON-NEGOTIABLE NOTE.

$200. HARRISBURG, MAY 10, 19...

Sixty days after date I promise to pay...JAMES FLAHERTY..., ~~~Two Hundred~~~ Dollars, value received.

...L. G. VANDUSEN...

FORM OF NON-PAYMENT NOTICE.

To MESSRS. G. H. CORY, S. F. LADD, R. T. MOLINE, and each of them:

GENTLEMEN,—You will please take notice that a note for $500, signed by Martin & Goodrich, dated August 3, 19..., due December 1, 19..., and endorsed by you, was duly presented by me, the holder, to the makers for payment and was not paid, and that I shall look to you for payment thereof.

Respectfully,

THOMAS WYNTERS.

(A notice for non-payment or non-acceptance must be sent to the endorsers before the close of the second day after the refusal to pay or accept is made, else they are released from responsibility).

FORM OF NOTE USED BY WHOLESALE HOUSE.

$400. CHICAGO, Nov. 17, 19...

Six months after date, I, the subscriber, residing in...Xenia, Miami ...County, and State of...Indiana..., promise to pay to the order of YOUNG, CARTER & CO....Four Hundred...Dollars, for value received, negotiable and payable without defalcation or discount, and without relief from any valuation or appraisement law, with current rate of exchange on Chicago, Ill.

No...411...

...MERWIN STANLY...

FORM OF NOTE PAYABLE AT BANK.

$100. NASHVILLE, SEPT. 7, 19...

Thirty days after date I promise to pay...W. H. CLEMMONS..., or order, ~~~One Hundred~~~ Dollars, payable at the First National Bank, value received.

...HENRY CRITENS...

A custom prevails in the mercantile community of drawing notes payable to the maker's own order, with his indorsement, for the purpose of facilitating their transfer without requiring the holder to indorse them.

FORM OF NOTE TO ONE'S OWN ORDER.

$1000. ST. LOUIS, APRIL 27, 19....

Three months after date, I promise to pay to the order of myself ~~~One Thousand~~~ Dollars, without defalcation. Value received.

...PHILIP C. KENEDY...

FORM OF NOTE WITHOUT GRACE.

$500. SAN FRANCISCO, OCT. 1, 19...

Thirty days after date, without grace, I promise to pay to...LEMUEL MOSSER..., or order, ~~~Five Hundred~~~ Dollars, value received.

...JOHN W. SMITH...

NOTARY PUBLIC.—A public officer before whom acknowledgments of deeds and other instruments are made, in order to render them available as evidence of the facts therein contained in any other country.

NOTE.—A written obligation to pay money or goods. (See Promissory Note).

NOT GUILTY.—In criminal actions, the plea by way of traverse, and general issue.

NOTICE.—A paper that communicates information; a warning. **Notice, Avernment of**, the statement in a pleading that notice has been given. **Notice, Constructive**, that which the law implies; as, notice by record. **Notice of Dishonor**, the protest of a bill of exchange or promissory note for non-payment. **Notice to Produce Papers**, the giving to an adverse party notice to produce any written instrument in his possession, and which is required in evidence on the trial of the cause. **Notice to Quit**, a writing from a landlord to his tenant requesting him to quit the premises leased, and to give possession of the same at a day named.

FORM OF NOTICE TO QUIT.

To ROBERT RAIKES,

SIR:—Please observe that the term of one year, for which the house and land, situated at 1248 Mission Street, and now occupied by you, were rented to you, expired on the first day of March, 19..., and as I desire to repossess said premises, you are hereby requested and required to vacate the same by the 10th inst.

Respectfully yours,

Sylvester Gordon.

San Diego, March 2, 19...

NUISANCE.—Anything offensive or injurious, and unlawfully worketh inconvenience, hurt, or damage.

FORM OF COVENANT AGAINST NUISANCES.

And the said...Marion Potts..., for himself, his heirs and assigns, does hereby covenant to and with the said...G. H. Howell..., his heirs, executors and administrators, that neither the said ...Marion Potts..., nor his heirs or assigns shall or will at any time hereafter erect or permit upon any part of the said lot any slaughter-house, furnace, forge, smith-shop, steam-engine, brass-foundry, nail or other iron factory, or any manufactory of gunpowder, glue, varnish, vitriol, ink, or turpentine, or for the tanning, dressing or preparing skins, hides, or leather, or any brewery, distillery, or any other noxious or dangerous trade or business. (The above might be inserted in a deed).

NULLITY.—The state of being null and void, or of no force.

NONCUPERATIVE WILL.—An oral will, declared by a testator in extremis, before witnesses, and afterwards reduced to writing.

NURTURE.—The act or right of taking care of children until the age of fourteen years.

OATH.—A solemn affirmation or declaration of truth-telling, made with an appeal to God as witness. **Oath of Allegience**, members of all state and national, legislative, executive, and judicial departments of the government, are required, on taking office to take the oath of allegience, i.e., to support the Constitution of the United States. They are also required to swear to discharge the duties of their offices to the best of their ability.

FORM OF PRESIDENT'S OATH.

I do solemnly swear or affirm that I will faithfully execute the office of President of the United States, and will, to the best of my ability, preserve, protect, and defend the Constitution of the United States.

Test Oath, an oath or a declaration in favor of or against certain religious opinions, as a qualification for office. Forbidden in the United States. **Oath Decisory**, an oath which one of the parties in an action defers or refers back to the other for the decision of the cause.

OBIT.—A funeral solemnity or office for the dead; the anniversary office.

OBLIGATION.—Any act which binds one to do, or forbear to do, something to another, or for him; a bond containing a penalty, with a condition annexed, binding a person to some performance. **Obligee**, the person in whose favor an obligation is contracted. **Obligor**, the person who enters into an obligation.

OCCUPANCY.—The act of taking possession of those things which before did not belong to any one. **Occupant**, one who first possesses a thing; he who has actual possession to the exclusion of others. **Occupation**, the act or state of occupying; use or tenure; business or trade.

OFFENSE.—A misdemeanor or a crime; a crime not indictable, but punishable summarily, or by the forfeiture of a penalty.

OFFICE.—A department, as of state; a house or apartment where commercial men, etc., transact their business; a right to exercise a public or private employment, and to take the fees and emoluments belonging thereto. **Office Copy**, an authentic transcript of a proceeding filed in the proper office of a court. **Officer**, one legally invested with an office,

and authorized to perform some private or public duty. **Official**, one who holds an office; done by virtue of authority; an ecclesiastical judge appointed by a bishop, with charge over a spiritual jurisdiction. **Official Manager**, a managing officer appointed to oversee the winding up of the affairs of a joint-stock company.

OFF-SET (or SET-OFF).—A claim which one party has against another who has a claim against him; a counter-debt. In ordinary cases debts owed by two parties to each other offset and destroy one another, but this is not always so with negotiable paper before it is due.

OLD ACCOUNTS.—Open ledger balances of long standing, or unsettled bills.

OLERON LAWS.—Laws pertaining to maritime affairs; so called because supposed to have been made by Richard I., when at the island of Oleron.

OLIGARCHY.—A form of government wherein the power of administration is in the hands of a few persons self-appointed. (See Government).

OLOGRAPH.—A writ or document wholly written by the person making it.

OMISSION.—Neglect of that which duty requires, which renders void many proceedings, and sometimes is placed among crimes and offenses. **Omnium**, a term signifying the aggregate value of the different stocks in which a loan is funded. **Onerous Cause**, a legal consideration. **Onerous Contract**, one made for a given consideration. **Onomastic**, a signature made in a different handwriting from that in the body of the instrument.

ON SALE.—A term signifying that goods or merchandise has been left with another person than the owner for sale.

OPEN.—To vacate; as, to open a judgment, or open an order of the court; to begin; as, to open a case. **Open Account**, a running account on a merchant's books, of debits or credits, with an individual or firm. **Open Court**, a court during the time in which it is engaged in the transaction of business. **Opening**, a term used for the day on which dry-goods merchants, milliners, etc., display new goods; the first address of a counsel in a cause. **Opening Books**, in Book-keeping, is making the necessary entries for indicating the exact condition of affairs at the time of beginning business. In the Journal, the several kinds of property carried into the business, or devoted to it, should each be made Dr., under its proper title, for its value; and Stock should be made Cr. for the amount of the whole. In case of existing liabilities at the time, Stock should be made Dr. for their amount to the several titles of account representing them. **Open Policy**, an insurance policy intended to cover all goods shipped by a certain person within a specified time; each special shipment and the amounts of insurance to be indorsed upon the policy, as the shipments are made.

OPINION.—Settled judgment or belief of the mind; the formal decision of a judge pronounced upon a case. If there be several judges, and they fail to agree, the opinion of the majority is called the prevailing opinion, and of the minority is called the dissenting opinion.

OPPRESSION.—The imposition of unreasonable burdens or exactions upon a person, under pretense of law.

OPTION.—A term used in the stock exchange for taking or delivering at a future day a certain number of shares of a given stock at a price agreed upon. **Optional Writ**, an alternative writ, commanding the defendant to do the thing required, or show cause why he has not done it.

ORAL.—Spoken, as opposed to written; as, oral testimony, or oral law. **Oral Contract**, a contract made by word of mouth, and may be either implied or express. An express contract is one definitely expressed in words; and an implied contract is one implied from all the circumstances of the transaction. **Orator**, an advocate, or the party who files a bill in chancery. **Ordeal**, an ancient manner of trial in criminal cases to determine guilt or innocence by causing the accused to pass through fire or water, or by the wager of battle.

ORDER.—A mandatory act; a written request to deliver goods or money to some person mentioned, or to his order, or to the bearer, on account of the person signing the request. It is used by the person receiving it as a voucher that the person signing it is responsible, and that the thing or things mentioned have been delivered. Orders may be made negotiable; but the persons on whom they are drawn are not under obligation to pay them unless they have been accepted.

FORM OF ORDER FOR MONEY.

RALEIGH, N.C., SEPT. 10, 19...

MR. C. L. KINLEY:

Please pay to ..B. S. WALL.., or order —Forty— Dollars, due on my account, and oblige

Yours, respectfully,

...ROBERT JOHNSON...

FORM OF ORDER FOR GOODS.

WASHINGTON, MAY 29, 18...

MR. WM. CROWE:

Please pay to...D. T. FOX.., or bearer, —Sixty— Dollars in goods from your store, and place to account of ...F. M. WALTON...

BALTIMORE, FEB. 15....

MESSRS. CHLOE, MARSH & CO.:

Please deliver to the bearer, ...PHILIP ROADS.., such goods as he may desire from your store, not exceeding in value the sum of —FIFTY— Dollars, and charge the same to my account. ...L. H. MANLY...

LAFAYETTE, MARCH 3, 19...

MESSRS. WHEWELL & CO.:

Please deliver to..P. D. ROSS.., or order —One Hundred— Barrels of Flour, stored by me in your warehouse. ...C. D. WILSON...

UNION CITY, JUNE 1, 19...

MR. W. W. PARSONS,

Please send me, per bearer, —FIFTEEN— Barrels of Flour, Extra Drifted Snow, and oblige

Yours truly,

...RICHARD HAMM...

BUFFALO, JAN. 7, 19...

MESSRS. HAYWARD, COX & CO.,

New York.

Dear Sirs:

Please send immediately —FIVE (5)— Half-Chests Imperial Tea, Hugo & Otto, #10, as per sample sent us, and oblige

Yours truly,

...TOLEN & MEANS...

#50.40. SPRING VALLEY, OCT. 1, 18...

MESSRS. A. B. SEARLS & CO.,

Philadelphia.

Please send to ..A. Y. COOLEY..., Richmond, Va., —Two Dozen— copies of Wolford's Internation Law at introduction price, ($2.10), and charge to my account.

...MELVILLE MUNN...

ORDER BOOK.—A book containing a record of all sales of merchandise on account or for cash.

FORM OF ORDER BOOK.

ST. LOUIS, MARCH 1, 19...

S	S.S. Baker,	Travers.			
	30 da., 2% 10da.,	U.S. Ex.			
	10 doz. Hose	10.00	100	00	
	5 " "	7.00	35	00	135 00
	Case #750.	1/4 3/10			
	2				
✓	Bard & Co.,	Xenia.			
	Cash, 2%,	Mer. Dis.			
	30 yds. Sheeting,	20¢.	6	00	
	50 " A. Drilling,	25¢.	12	50	
			18	50	
		Less 2%		37	
	Case #751.	1/4 3/10	18	13	
	3				
✓	M.S. Watts,	Tipton.			
	30 da.	U.S. Ex.			
	50 yds. Dress Goods,	50¢.	25	00	
	50 doz. Buttons,	30¢.	15	00	40 00
	Case #752.	1/4 3/10			
	Total,				175 00

The marks ✓ are made when the goods are shipped. "1/4 3/10" indicates that the Bill of Lading is dated March 10. The figures under the shipping marks are the posting checks.

The above represents copies of orders sent out. A book similarly ruled also contains copies of orders received.

ORDER NOTE.—There are two kinds of notes, those payable (1) to order, and (2) to bearer. So also, there are the same two kinds of drafts or checks. A note, draft, or check, not containing one of the words "order" or "bearer" is not negotiable. It is useless to every one except to him whose name is mentioned as payee.

ORDINANCE.—A law, statute, decree, or regulation; usually applied to the laws passed by a city council. **Ordinary**, a dismantled ship laid up in harbor; **of a medium quality; an officer who has authority to take cognizance of causes in his own right, and not by deputation. Ordnance**, all kinds of large guns. **Orgild**, a payment for, or restitution of cattle.

ORIGINAL.—A first or primitive authentic instrument, or that which precedes all others of its kind, and serves as a model from which copies may be made. **When** documents are printed, all the impressions are considered as originals, and can be used as evidence. **Original Entry**, in Book-keeping, the first entry of a transaction. **Such** entry, to be admissible as evidence, must be made in a proper book. **Original Jurisdiction**, that which is given to a court in the first instance. **Orphan's Court**, a probate court.

OSTENSIBLE PARTNER.—One who is a real partner, and whose name appears as a member of the firm. **Ouster**, an ejectment or dispossession; **over** and more.

OUTFIT.—Equipments or supplies; as, of a ship for a voyage. **Outhouses**, buildings belonging to, and adjoining dwelling-houses. **Outlaw**, one who is deprived of the benefits of the law, or put out of its protection. **Outlawed**, to have existed (as a debt) for a certain length of time, after which, on that ground alone, the law prevents its being enforced. (See Limitation of Action). **Outrage**, open and wanton violence either to a person or thing; a wanton abuse. **Outstanding Accounts**, book debts and claims which are yet to be collected. **Outward Bound**, ships departing for a foreign port.

OVER.—Surplus; **money not required for the day's payment; cash on hand not accounted for. Overdraw**, to draw a greater sum than one has to his credit in a bank.

FORM OF NOTICE OF OVERDRAFT.

THIRD NATIONAL BANK.

St. Louis, Mo., Feb. 1, 19...

Mr. Henry Goff...

Your account appears to be overdrawn ~~$117.50~~. Please bring in your book to be written up and deposit the amount of the overdraft.

L. S. Cohn, Cashier.

OVERCHARGE.—A charge at a higher rate than what is customary, or that implied or agreed upon. **Overdue**, an obligation or note remaining unpaid after the time agreed upon. **Overloaded**, a stock exchange term signifying that the "bulls" cannot take and pay for the stock they have purchased. **Overrule**, to disregard, make void, or annul. **Overseers**, persons appointed to provide for the support of paupers who have no near relatives to support them. **Overstock**, a supply beyond what is demanded. **Overtrading**, the purchase of goods beyond the demand, or beyond the means of payment. **Overt**, apparent, public, or open to view.

OWE.—To be indebted to. **Owelty**, the difference paid by one coparcener to another, to equalize partition between them. **Owlers**, a term used to designate persons who carried wool or sheep to the sea side, by night, in order to be shipped off contrary to law.

OWNERSHIP.—Rightful or just claim or title. **Ownership** of real estate exists in different degrees, the most complete of which is full ownership, or to use the legal term—it is owned in fee-simple. **One** may do what he chooses with property he owns in full, provided he does not use it in such a manner as to injure others or their property. (See Life Ownership, Future Estate, Joint Ownership, and Trust).

OXGANG.—As much land as an ox can plow during the proper season, reckoned from 15 to 20 acres. **Oyer**, to hear. **Oyer and Terminer**, to hear and determine; a criminal court constituted by commission to hear and determine causes. **Oyez**, the introductory cry of an official connected with a court of law, or any public crier, requiring silence or attention, which is thrice repeated.

PACK.—To delude, or deceive by false appearances; as, to pack a jury. **Package**, a bundle or bale of goods. **Palace Court**, a court having jurisdiction in personal actions, held in England once a week before the steward of the household and knight marshal. **Pandects**, the Justinian books of the civil law.

PANEL.—A schedule or roll containing the names of certain persons summoned by a sheriff to act as jurymen. **Panic**, a monetary crisis; as, among business men, the result of overtrading or speculation.

PAPER BLOCKADE.—A decree or order declaring a certain coast or country in a state of blockade, without a force stationed there to maintain it. **Paper Currency**, bank-notes and bills of exchange, which represent money.

PAR.—Equality in nominal and actual exchange. **When** a security will bring its full value in the market, it is said to be at par. When it will not bring as much, it is said to be below par. When it is worth more than its face value, it is said to be above par, or to command a premium. **Par of Exchange**, the established value of the coin or standard value of one country expressed in the coin or standard of another. **Parage**, equality of blood, name, or dignity, especially of land in the partition of an inheritance between co-heirs.

PARAPHERNA.—The goods brought by a wife to a husband, over and above her dower. **Paraphernalia**, the clothing, jewelry, ornaments, etc., of a wife which she possesses, and which are suitable to her rank and condition of life.

PARAVAIL.—One who is the immediate tenant to one who holds of another, or who is the lowest tenant of the fee. **Parcel**, a package. **Pardon**, a remission of a penalty or punishment. **The** President may grant pardons, but only in cases of convictions by the United States courts. **A** Governor also has power to grant pardons, except in cases of impeachment, and, in some States, of treason. He may also commute a sentence, which is to exchange one penalty or punishment for another of less severity.

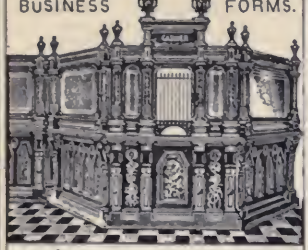
PARENT AND CHILD.—Parents are obliged to provide for the support and education of their children during their minority, or while they are under twenty-one years. Even if the children have property of their own, the father is so bound, but not the mother. **If** a parent neglects to provide necessaries for his child, others may do so and sue the parent for their value. **The** parent has the right to the custody of his child, and may legally punish it for good cause, but not cruelly. **The** father has a right to the labor and services of his children, and may recover their wages from any person employing them without his consent. **Children** who are able are in general bound to support indigent parents. (See Apprentice, and Guardian). **Parenticide**, one who murders a parent; or the crime itself.

PARISH.—An ecclesiastical division of a town or county, subject to the oversight and ministry of one pastor; a division of country. **Park**, an enclosed portion of grass- and decorated-land in or near a town or city for amusement or exercise; **an** inclosed chase extending only over a man's own grounds.

PARLIAMENT.—The general and supreme legislative body of Great Britain, comprising the houses of lords and the house of commons.

PAROL.—Verbal, or by word of mouth; also applied to written contracts not under seal. **Parol Contracts**, verbal contracts; **those** not under seal at common law. **Parol Demurrer**, a plea to stay or stop the pleadings in an action. **Parol Evidence**, oral evidence as opposed to written. **Parol Lease**, an oral agreement by one person to let to another a certain estate.

BUSINESS FORMS.



PAROLE.—The word of honor of a prisoner of war, that he will not take up arms against those who captured him, until regularly exchanged. **Parricide**, one who murders his mother, father, or children; or the crime itself. **Part Owners**, those who own a thing in common.

PARTICULAR AVERAGE.—That damage less than the whole, falling upon a particular property; a loss to be borne by the particular owner or his insurer. **Parties**, persons who are named in a deed or other instrument; those engaged in an action at law.

PARTITION.—A division into distinct parts; applied especially to the dividing of lands, tenements or hereditaments, which have descended by common law, or by custom, among co-heirs or parceners, where there are at least two.

PARTNER.—A member of a partnership, or an associate in any business or occupation. **Partnership**, a voluntary contract, whereby two or more persons agree to combine their money, property, labor, or skill in some lawful business, and to share its profits. A firm, house, or copartnership, each has a similar meaning to partnership. No one can be made a partner against his will. A partnership is formed simply and only by agreement. The duration of a partnership may be for a specified time (as two years), or, as is generally the case, no time may be agreed upon. Where no time is specified, any partner may dissolve a partnership at will. If the partnership is for no definite time, a partner may sell his interest in the common property to any one at any time. A transfer of interest dissolves the firm. The death of any partner dissolves the firm. Upon dissolution, each partner may demand that there shall be an accounting of the affairs of the firm, that the common property be sold, and that he be paid his proportionate share of what is left after paying its debts. A common course is for a retiring partner to sell his interest to some of the old partners, or to some one else whom they will receive as a partner, and have the business continue as before. The partners have, as to each other, only such rights and duties as they agree upon. It is implied (if not expressed) that each partner, who is to contribute his time or labor, shall exercise all skill, care, and diligence in the business, and without other compensation than his agreed share of the profits. Each partner has full authority to act for the firm, in any matter connected with its appropriate business. This is a legal consequent of the relation, whatever the agreement provides. Each partner is liable for the whole indebtedness of the firm, and not only the common property, but also all the private property of each partner may be taken to satisfy the debts of the firm. (See Failure). As to debts, a dissolution makes no change; but as to authority, each partner's act binds the firm only for the purpose of winding up the affairs, and not in any new transaction. Upon a dissolution, the old partners are responsible for new debts, unless they have given notice of the dissolution. (See Dissolution). A person lending his name to a firm, or allowing the same to be used after he has withdrawn, is still responsible to third persons as a partner.

COMPARISON OF PARTNERSHIP AND CORPORATION.

CHARACTERISTICS.	PARTNERSHIP.	CORPORATION.
Formation...	By agreement.	By Legislature.
Character...	A collection of natural persons.	A fictitious person.
Powers.....	Has powers of the natural persons composing it.	Has only the powers conferred by law.
Debts.....	All partners liable for all debts.	In some, stockholders liable to a limited extent; in others, not liable.
Transfer of Interest...	By partners, dissolves partnership.	By stockholders, new stockholder takes his place.
Death.....	Of partner, dissolves the partnership.	Of stockholder, those obtaining his stock become stockholders.

FORM OF PARTNERSHIP AGREEMENT.

This Agreement, made this...first day of...June..., 19..., between...John Wilson...of...Louisville..., and...W. W. Summers...of...the same place..., **witnesseth:**

I.—The said parties hereby agree to become co-partners, under the firm name of...Wilson & Summers..., and as such partners, to carry on together the business of buying and selling all sorts of dry goods, at No...111 Pine Street...in the city of...Louisville...

II.—The said...John Wilson...agrees to contribute—Three Thousand—Dollars ($3000), to the capital of said firm; and the said...W. W. Summers... agrees to contribute—Two Thousand—Dollars ($2000), to the same; the sum of $3500 of said capital to be expended in the purchase of a stock in trade.

III.—All the net profits arising out of the business shall be divided in the following proportions; viz., three fifths to the said...Wilson...and two fifths to the said...Summers...

IV.—Each partner will devote all his time to the said business, and will use his best efforts to make the business successful, and promote the interests of the firm in every way.

V.—If on the closing out of said business there shall have been a net loss, it shall be borne in the same proportions as the profits.

The above is only a meager outline for a contract, there being a great many other clauses which might be added, providing for different contingencies which might arise). (See Contract, and Agreement).

FORM OF PARTNERSHIP NOTE.

No...14... Boston,...Feb. 1...19...

One month after date, without grace, we promise to pay to the order of...Ourselves...—Two Hundred and Forty—Dollars, at any bank in Boston. ...WEBSTER & Co...

$240. 79 UNION SQUARE.

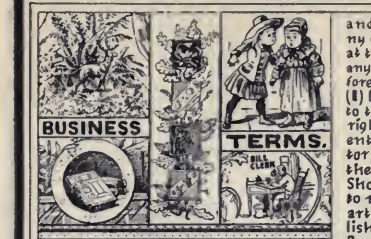
PARTY-WALL.—A partition wall, or a wall erected on the line of two adjoining estates, half on each, for the use of both parties. In a party-wall each party owns that part which is on his own land, and also owns the right to have the rest of the wall stand though it is not on his land. Neither has the right to take down even that part which is his own, without the consent of the other. **Par Value**, a nominal value placed upon the stock of a corporation by its organizers at its organization.

PASS.—A free journey-ticket on a railway; to be transferred; as, to pass as the fixtures with the sale of a house; to decide upon; as, the jury have passed upon the case; to be entered; as, let the judgment pass for the plaintiff. **Passage Money**, the money paid for conveyance at sea. **Pass Book**, a small book furnished by bankers to their customers, in which are entered all payments and receipts of cash.

FORM OF PASS BOOK.

Dr. THIRD NATIONAL BANK IN ACC.				WITH...C.S. MASON...			Cr.
19...				19...			
Feb. 3	To Cash.	8000	00	Feb. 7	By Cash..	800	10
" 10	"	1400	00	" 9	"	400	15
Mar. 1	"	300	00	" 17	"	560	00
" 16	"	150	00	Mar. 1	"	1010	00
" 27	"	5000	00	" 6	"	3000	00
				" 31	Balance	9079	75
		14850	00			14850	00
Apr. 1	Balance	9079	75				

PASSENGER.—A traveler, or one journeying by railway, steamboat or coach. **Passive**, all the sums of which one is debtor. **Passport**, a document carried by neutral merchant vessels in



time of war to certify their nationality, and protect them from belligerents; a government license for the safe passage of any one from one place to another. **Passports** are issued by the United States only to its own citizens, upon application, supported by proof of citizenship. When the applicant is a native citizen of the United States he is required to transmit his own affidavit of this fact, stating his age and place of birth, with the certificate of one other citizen of the United States to whom he is personally known, stating that the declaration made by the applicant is true. The affidavit must be attested by a notary public, under his signature and seal of office. If the applicant be a naturalized citizen, his certificate of naturalization must be transmitted for inspection. The application should be accompanied by a description of the person, stating the following particulars, viz.: Age:—years. Stature:—feet, —inches (English measure). Forehead: —. Eyes:—. Nose: —. Mouth: —. Chin: —. Hair:—. Complexion:—. Face: —. If the applicant is to be accompanied by his wife, minor children, or servants, it will be sufficient to state the names and ages of such persons, and their relationship to the applicant, when a single passport for the whole will suffice. A fee of one dollar must accompany each application, made payable to the Disbursing Clerk of the Department of State. The application should be addressed to the Department of State, Washington, D.C. A passport is good for only two years. Persons desiring to obtain passports for themselves, will be furnished blank forms, by applying to the Department of State, indorsed "Passport Division." In applying for forms, state if for native or naturalized citizens.

PATENT.—The grant by the government to some person of an exclusive right to manufacture, sell, and use an invention made by him. **Patentee**, one to whom a patent is granted. **Patent Office**, the office through which applications for patents are made, and from which they are given. **Patent Medicine**, medicine the composition of which is a secret, and the right of sale limited by the government to the proprietor. —**Any** person, whether a citizen or alien, may obtain a patent for any new invention or discovery, or any improvement made by him and not before known, or used by any one else in this country, and not at the time patented, or described by any printed publication in this, or any foreign country. Patents may be sold: (1) By Territorial Rights, which concede to the purchaser the same exclusive right as of the owner, to sell the patented article within a specified territory, and sometimes may include the right to manufacture; (2) By Shop Rights, which give the privilege to manufacture or use the patented article in a specified shop or establishment, and at no other place; (3) By Royalty, which is a certain sum paid the inventor by the manufacturer, on every article made or sold. The duration of a patent is seventeen years. The application for a patent must be made in the name of the inventor, who can alone sign the papers. It is almost impossible for one not thoroughly acquainted with the patent office proceedings, to obtain a patent without employing a patent attorney to prepare the papers and conduct the correspondence. Joint inventors are entitled to a joint patent. An inventor can assign his entire right either before or after the issue of the patent. A caveat runs for one year, and prevents the issue of a patent without the knowledge of the caveator, to any person for a similar device. Caveats may be renewed at the expiration of each year. The fees required for obtaining patents vary according to the nature of the article, whether it be a design, an original patent, a caveat, etc. For a caveat the fee is $10; with application for an original patent, $15; and when the patent is issued, $20 more. (Full information as to prices, forms, rules, etc., may be obtained from the "Rules of Practice in the United States Patent Office," a pamphlet which may be obtained by addressing the "Commissioner of Patents, Washington, D.C.").

PATENT WRIT.—A writ not closed or sealed up. **Paternal Property**, an estate or other property which descends from the father and other ascendants of the paternal stock. **Patriarchal Government**, a form of government in which the father and ruler is the head of a family; as was common in the early ages of the world.

PATRIMONY.—A right or estate inherited from a father; any kind of property. **Patricide**, one guilty of murdering his father, or the crime itself. **Patriot**, one who loves his country, and exhibits great zeal in its interests. **Patron**, one who countenances and protects either a person or a work; a person who has the gift and disposal of church preferment. **Patronage**, special countenance or support; the right of appointing to office; the right of presentation to a church or ecclesiastical benefice.

PAUPER.—One who is so poor that he has to be supported at the public expense. In some States there is in each county a poor-house, to which the paupers of the several towns are sent to be provided for. **Paviage**, taxes or money paid for paving streets or highways.

PAWN.—Any movable property deposited as security for the repayment of a loan of money. **Pawnbroker**, one whose business is to lend or advance money on the security of movable property deposited. A pawnbroker cannot retain goods illegally pawned, as in the case of stolen property. **Pawnee**, one who receives a pawn or pledge as security. **Pawnor**, one who pawns or pledges property as security for money borrowed.

PAY.—To discharge a debt, or make suitable return for expense or trouble. **Payable**, that may be paid, or justly due. **Payee**, the one in whose favor a note or bill of exchange is drawn, or who is to receive the money. **Payer**, the one who pays, or is under obligations to pay. **Payment**, the discharge of a debt or obligation. **Payment, Equation of**, finding the average time for the payment of an entire debt, where several sums become due at different times, so that neither party shall sustain loss. This average time is intermediate among the several times or dates, for partial payments, and so fixed that the gain to the debtor from retaining one or more sums after they become due, shall exactly equal the loss by him from paying one or more other sums before they become due. **Payment into Court**, upon admitting either the whole, or a part of the plaintiff's claim, a deposit by the defendant, of a sum of money with the court for the benefit of the plaintiff, and in answer to his claim. This generally relieves the defendant from payment of costs, unless judgment is obtained for a larger sum than that paid in. **Pay Roll**, the same as Time Book, which see.

PECULATION.—The applying to one's own private use of public money or goods, or of property intrusted to his care. **Pedagium**, money paid for the passing of foot or horse through any country.

PEERS.—Those of the same rank or station; members of the House of Lords; those who are impaneled in an inquest upon any man, for the convicting or clearing him of any offense for which he is called in question; this is called trial by one's peers. **Penal Action**, an action for the recovery of a statute penalty. **Penalty**, punishment inflicted by law, either on the person, or by a fine.

PENITENTIARY.—A prison for the punishment of convicted criminals.

PENSION.—An allowance made to any one, without an equivalent, for valuable services performed by him. In this country pensions are granted by the government to those who have been disabled in war. If a soldier was killed, a pension is granted to his widow and children. State and city governments sometimes allow pensions for valuable services, as in the case of firemen. **Pensioner**, one who is supported by an allowance at the will of another; a discharged soldier who receives a pension.

PEOPLE.—A nation or state taken collectively; the body of persons who compose a community. **Peppercorn Rent**, the reservation of only a nominal rent is frequently confined to "one peppercorn."

PEREMPTORIOUS.—The quality of being peremptory; that which takes away or destroys forever. **Peremptory**, final, positive, absolute, or determinate. **Peremptory Challenge**, an authoritative challenge given to jurors without cause. **Peremptory Exception**, a defense which denies the ground of action. **Peremptory Mandamus**, a mandamus demanding that a thing be done absolutely. **Peremptory Plea**, a plea so founded that it tends to destroy the right of action.

PERFORMANCE.—The normal and natural mode of discharging an obligation; the carrying out or completion of a thing. **Perils of the Sea**, extraordinary risks attendant upon a sea-voyage, and which cannot reasonably be foreseen and provided against. **Perishable Goods**, merchandise, such as ice, fruits, etc., which loses its value and becomes worse from being kept.

PERJURY.—Willfully swearing or affirming falsely to any material matter, upon an oath legally administered. To instigate another to swear falsely, is subornation of perjury. Both are punishable offenses. **Permit**, a written license from the Excise Office to permit the removal of excisable goods upon which duty has been paid, from one place to another.

PERSONAL ACCOUNTS.—Accounts kept with persons. Each such account bears the name of the person with whom it is kept. In case of firms or companies, the titles employed are the names under which they transact business. If a name is not sufficient to identify a firm or person, add the location. Debit a person when he gets into our debt, or we get out of his debt. Credit him when he gets out of our debt, or we get into his debt. If one buy goods without paying for them, the transaction is on account. If the debit side is the larger, he owes us; if the smaller, we owe him.

FORM OF PERSONAL ACCOUNT.

L. S. MARSHFIELD.

Dr.					Cr.				
May	4	To Mdse.,	37	85	May	12	By Cash,	60	00
"	10	" "	52	15	"	28	" "	8	00
"	28	" Plaster,	8	42	"	31	" Balance,	98	42
			98	42				98	42
June	1	To Balance,	28	42					

PERSONAL ACTION.—In case of breach of contract, or other injuries, a suit brought for the recovery of chattels and goods. **Personal Chattels**, goods, movables, wearing apparel, and other personal effects which can be carried about the person. **Personal Liberty**, primarily, the right to go and come without restraint; but its meaning has been extended to cover freedom of speech and of the press, the right to assemble peaceably for discussion, the right to petition the government, and freedom from unreasonable search of property and papers. **Personalty**, personal property, as opposed to realty. **Personal Property**, every species of property except real estate; the right or interest which one has in things personal. **Personal Security**, the right to enjoy life, body, health, and reputation. It means not merely the right to live, but to live in safety and tranquillity, without fear and without the necessity of self-defence. No greater reproach can be brought against a state than to say that human life is not secure within its territory.

PETITION.—A paper or document containing a written request or supplication. In the enactment of laws, it is common for the people to bring a measure to the notice of the legislature by petition. Petitions are usually sent to those members who represent the counties or districts in which the petitioners live, and are by these members presented to the legislature. (See Memorial).

FORM OF PETITION TO THE PRESIDENT.

To ——, President of the United States:

The petitioners undersigned respectfully solicit of you.....(here insert what is petitioned).

We refer to accompanying papers, A, B, C, D, etc.

With the greatest respect,

Atlanta, Oct. 1, 19.... —— ——:

FORM OF PETITION TO THE GOVERNOR.

To ——, Governor of the State of ——:

Your petitioners respectfully represent.....(here insert what is petitioned).

Respectfully,

—— ——, Justices of the
—— ——, County Court.
—— ——, Sheriff.
—— ——, Minister.

FORM OF PETITION TO THE LEGISLATURE.

To the Honorable, the Senate and House of Representatives of the State of ——, in Legislature assembled:

The undersigned petitioners, residents and taxpayers of the city of ——, respectfully represent that they.....(here insert what is petitioned).

Signed { —— ——: —— ——: —— ——: —— ——:

FORM OF PETITION TO A CORPORATION.

To the Board of Directors of the Spring Valley Water Company:

Gentlemen:—As the vacant lot adjoining your works, etc.

Respectfully,

—— ——.

FORM OF PETITION TO COUNTY COURT.

To the Hon. Justices of the —— County Court:

The undersigned, residents of —— Township, respectfully petition, etc.

Signed { —— ——: —— ——: —— ——: —— ——:

County of.....
State of.....
Date.....

FORM OF PETITION TO CITY AUTHORITIES.

To the Mayor and Common Council of the City of ——:

Gentlemen:—Your petitioners, citizens and taxpayers of the first, second, and third wards of this city, respectfully petition your honorable body, etc.

Signed { —— ——: —— ——: —— ——: —— ——:

City of.....
State of.....
Date.....

It is a general rule, in the case of petitions presented to Courts that an affidavit should accompany them, setting forth that the statements therein made, so far as known to the petitioner, are true, and that these facts, by him stated as within his knowledge and that of others, he believes to be true).

PETIT (or PETTY).—Small, diminutive, or little in figure. **Petit Jury**, an ordinary jury, as opposed to the grand jury. **Petit Larceny**, stealing of goods below a certain amount. It is punishable by a fine or imprisonment in jail or both. The amount varies in the different states. **Petti-fogger**, one pretending to be a lawyer, without the necessary qualifications; a tricky lawyer.

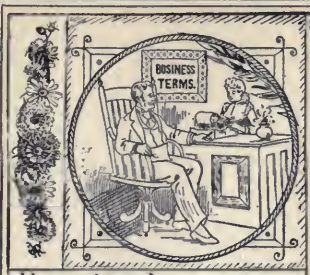
PETTY CASH.—Money kept in hand to meet current expenses. **Petty Cash Book**, a book for entering small receipts and payments. Its form is the same as the ordinary cash book. **Petty Expense Book**, a small book in which trifling expenditures are entered, before being transferred to the cash book. **Petty Ledger**, an auxiliary ledger in which all accounts are opened that are not likely to be permanent, active accounts. An account called Petty Accounts is opened in the main ledger, to represent these transient accounts, and to keep it in balance. The Petty Ledger does not balance, but may be proved by finding the difference between the sides of the Petty Ledger, and comparing it with the difference between the sides of the account with Petty Accounts in the Main Ledger, which differences should agree. The form of the Petty Ledger is the same as the Main Ledger.

FORM OF PETTY EXPENSE BOOK.

MAY 2, 19....

May	2	Ink, 10¢; Pens, 25¢; Holder, 25¢,		60
		Laundry, 75¢; Paper, 50¢, Counted as cash.	1	25
			2	85
	4	Wrapping Paper,	2	10
		Soap, 25¢; Pencils, 35¢, Counted as cash.		60
	7	Charity, 75¢; Postage, 50¢,	1	25
		Total for week,	5	80

Entered in C. B., fol. 24.



PHYSICIAN'S DIARY.—A physician's book of sufficient size for recording his daily visits to patients, so arranged as to be convenient for the pocket, serving as a reliable book of original entry, and as an auxiliary to his complete set of account books.

FORM OF PHYSICIAN'S DIARY.

DAILY RECORD FOR WEEK ENDING FEB. 7, 19....

ACCOUNTS.	AMT.	PAID.	REMARKS.	S.	M.	T.	W.	T.	F.	S.
A. Cox	17	10	17 BEALE STREET MEASELS	V. ½	V.V. ¼	V.R. 3	V. ½	V. ½	P. ½	V. ½
S.S. Dix	9		419 10TH STREET TYPHOID FEVER			GEN. 3	P. \	LUC. ½	M. ½	V. \
C. Mott	8	8	FARMER, CROSS ROS. INJURED SHOULDER		½	V. ½	P.M. \			
	34	18								

PICKPOCKET.—One who cunningly steals from another by picking his pocket while in a crowd or public place. **Pignus**, a pledge, pawn, or security. **Pigment**, any substance used for paints or colors; generally applied to materials for oil painting. **Pillory**, a wooden machine, in which the head and hands of a criminal are placed, as a means of punishment.

PIN MONEY.—Money allowed a wife by her husband for private expenses. **Piracy**, robbery or forcible depredation on the high seas, without lawful authority, in the spirit of universal hostility, and which if committed upon land would amount to felony. **Piscary**, the right to fish in the waters of another.

PLAINTIFF.—In both civil and criminal cases, the party who commences a suit against another. **Plaintiff in Error**, the party who sues out a writ of error.

PLATFORM.—In political nominating conventions, a series of resolutions, adopted before or after the nominations are made, setting forth the principles of the party which the nominees are supposed to represent.

PLEA.—In a legal action, the answer given by the defendant to the declaration and demand of the plaintiff, setting forth his defence, by giving the reasons why he thinks he should not be compelled to do what the plaintiff demands. **Plea in Abatement**, a plea which tends only to delay an action. **Plea in Avoidance**, a plea admitting a matter as a fact, but showing some new matter to destroy its legal effect. **Plea in Bar**, a plea denying that the plaintiff has any cause of action.

PLEADING.—The proceedings in a suit, consisting of the written statements of the contending parties. **If** the pleadings agree as to the facts, the matter is then presented to the court, and it makes its decision, without—what is popularly known as—a trial. But if the pleadings do not agree, the dispute must be settled by a trial. **Pleas of the Crown**, the English criminal law department, in which the king is a party.

PLEDGE.—A warrant given, as one's faith or word; **any** personal property given as security for a debt or engagement. **The** word pawn (q.v.) means nearly the same, and both words are often used to mean the property pledged, as well as the agreement. **A** pledge being a contract, three elements are essential to it: (1) a debt; (2) an actual delivery to the creditor of the property pledged; (3) an agreement that it shall stand as security. **The** creditor may keep the property pledged to him until the debt is paid; or if not paid when due, he may sell the property. **Unless** there is an agreement to the contrary, before the pledge can be sold a demand for the payment of the debt must be made upon the debtor, and notice must be given him of the time and place of sale. **Until** it is sold the property belongs to the debtor, who may at any time before it is sold redeem his property by paying the debt.

PLENARY.—Full, entire, or complete. **Plenipotentiary**, having full power; as, an ambassador, who is invested with full powers to negotiate a particular business or a treaty. **Plow bote**, wood for instruments of husbandry.

PLURALITY.—In elections, the reception by a candidate of a higher number of votes than any other, though such number be less than half of all the votes given. **Pluries**, as often, or very often. **A** writ that issues after the first and the alias (second) have been ineffectual.

POACHING.—The act of stealing game in the night time. **Poinding**, a process by which the property of the debtor's movables is transferred to the creditor; distrangement or distress. **Point**, a question or proposition arising in a case. **Pointer**, in the stock exchange, a theory or fact regarding the market on which one bases an intended speculation.

POLICE.—The internal regulations of a town, city, or district, for the preservation of order, cleanliness, health, etc.; a body of civil officers employed to enforce the laws respecting good order, cleanliness, etc. **Police Court**, a minor court to try persons brought before it by the police. **Police Commissioner**, a civil officer commissioned to regulate and control the appointment, duties, and discipline of the police. **Police Station**, the headquarters of the police, where they assemble for orders, and to which they take arrested persons; also of a section of them.

POLICY.—A ticket, warrant or written contract for money in a public fund or society; **the** writing or instrument in which a contract of insurance is embodied. **An** interest policy shows by its form that the assured has a real interest in the matter insured. (See Open, Valued, and Wager Policies, also Fire, Life, and Marine Insurance).

POLITIC.—Pertaining to or promoting a policy; **well** advised or according to good policy. **Political**, pertaining to public policy, or the administration of State affairs. **Political Liberty**, those who have a voice in the conduct of public affairs are said to have political liberty. **The** line of division between those having and those not having political liberty varies greatly in different states. **Color**, poverty, religious belief, sex, and illiteracy, are the chief elements that mark the line. **Political Duties**, the chief of these are: (1) Duty to support the government by obeying its laws; (2) Duty to disobey a law which violates his conscience, and suffer the penalties of disobedience; (3) Duty to support the government financially, and by service if necessary to its defence; (4) Duty to vote, if practicable, at every election; (5) Duty to aid in armed revolution as a last resort; only, however, if success is probable. **Political Rights**, the chief of these are: (1) Right of all to establish a government; (2) Right of each to share in it, by voting; (3) Right of each to protection by the government, unless said right be forfeited.

POLL.—A head; **the** entry of the names of persons qualified to vote for civil officers. **To** poll a jury, is to examine each one individually as to his verdict. **Poll-list**, a list of the names of the persons voting at an election. **Polls**, the places where the votes are cast, and which are generally open one day from sunrise to sunset. **Poll Tax**, a capitation tax, which is a certain sum on every head.

POLYANDRY.—The state of a woman who has several husbands. **Polygamy**, the state or practice of having a plurality of wives or husbands at the same time. **Pone**, a writ whereby a cause is removed from a county or other inferior court to the superior courts. **Pontage**, a contribution for repairing a bridge. **Pool**, in the stock exchange, a ring, clique, or combination, formed to control prices, and carry through a corner, also the stock or money contributed for such purpose.

POOR.—Every township is under obligation to provide for the support of those indigent poor who have acquired a legal residence therein. **Those** needing relief, but having no legal residence in any township, are supported by the county. **The** township trustees or supervisors are empowered to oversee the poor. (See Pauper).

POPULAR ACTION.—An action allowed by law to any one who will sue for the penalty. **Popular Will**, the voice of the people. **A constitution** is a formal expression of the popular will of the state, granting authority to the government. Every state is divided into two classes,—those having a voice in public affairs, and those having no voice. A large number of people seldom being unanimous in their opinions, justice requires that the will of the smaller number shall submit to that of the larger; hence, the rule that the majority decides. Of the whole number of people, popular will is the voice of much less than one half.

PORTION.—A certain part of an estate which is given or left to a child. **Port**, a harbor for vessels. **Port of Delivery**, a place where vessels may legally discharge their cargoes. **Port of Entry**, a port or harbor where a Custom House is established for the legal entry of merchandise. **Port-sales**, auction sales; so called because they were held in ports.

POSITIVE EVIDENCE.—Direct evidence, or proof of the very fact. **Positive Law**, a law or rule prescribed by the supreme power of a State, declaring some right, prohibiting some act, or enforcing some duty. **Posse**, a possibility; a thing is said to be in posse when it may possibly be; the civil power of a county that may be called to attend a sheriff in the execution of justice.

POSSESSION.—State of owning or having in one's own power. **To give possession**, to put in another's power or occupancy. **To take possession**, to enter on, or to bring within one's power or occupancy. **Writ of Possession**, a written order of a court directing a sheriff to put a person into possession of property recovered by legal process.

POST.—After; a station for soldiers, also the soldiers stationed at it; to place letters in the post-office; in book-keeping, to carry the entries from other books to the ledger. **Postage**, the charge made by the government for carrying letters, etc., to different points. **Postage Stamps**, small pieces of paper having certain values impressed by the government, used for attaching to letters, newspapers, etc., in paying postage. **Postal Communication**, the delivery of the mails in any part of the country. The ordinary routs of travel, highways and railroads, are adopted by the government as post-roads. **Post-Date**, to date an instrument later than the time on which it is made. **Post-Mark**, the stamp of a post-office showing the time of a letter passing through the post-office. **Postmaster**, one who has the superintendence and direction of a post-office. **Postmaster-General**, the chief executive head of the Post-Office Department, who establishes post-offices, provides for carrying the mail, and has general charge of all matters connected with it. **Post-Office**, an office where letters and other mail matter are received for transmission to various parts, and from which letters, etc., are delivered that have been received. **Post-Obit**, a term applicable to any obligation, promising to pay unusual interest by the promiser on the death of some one from whom he has expectations of property. **Post mortem**, after death. **Post Nuptial**, something which takes place after marriage. **Posthumous Child**, a child born after its father's death. **Post-Office Money Order**, an order, payable at sight, granted by a post-office for any small sum of money less than $100, and made payable at any post-office wished in the United States, on depositing the sum named and the payment of a small commission. **Postscript**, a paragraph added to a letter below the signature, and usually marked P.S.

POST-OFFICE SUGGESTIONS.—

Advertised Letters.—In applying for advertised letters, the parties should mention the place or places whence they are expecting correspondence.

Change of Address.—A subscriber to a newspaper or other periodical, who changes his post-office address should at once notify the publisher, and have the publication sent to his new address. Postal employés are not permitted to change the address upon misdirected mail-matter; but must return to sender, if known, or send to the Dead Letter Office.

Dead Letter Office.—Inquiries relating to mail-matter supposed to have been sent to this office, should be addressed to the Superintendent, Dead Letter Office. The letter of inquiry must state (1) to whom and what post-office the article was addressed; (2) name and full address of writer or sender; (3) date and place of mailing; (4) brief description of contents; (5) if registered, the number must be given.

Directing Mail-matter.—Address legibly and completely, giving the name of the post-office, and, if in a city with free-delivery, the street and number, adding the number of the post-office box of the person addressed, if he have one. It is well also to give the name of the county, and to spell the name of the State in full. To secure return to the sender in case of misdirection, or if not called for at its destination, his name and address should be placed upon the upper left-hand corner of all mail-matter.

Envelopes.—Thin envelopes, or those made of unsubstantial paper, should not be used; as being frequently handled, and in the mail-bags subjected to pressure and friction, they are frequently torn open or burst.

General Delivery.—Letters addressed to persons temporarily sojourning in a city with free-delivery, should be marked "Transient" or "General Delivery," if not addressed to a street and number.

Hotel Matter.—Matter addressed for delivery at hotels, should be returned to the post-office as soon as it is evident that it will not be claimed. Proprietors should omit the return request from envelopes gratuitously supplied to their guests, and guests using such envelopes should designate what disposition should be made of letters sent by them in case they cannot be delivered. Proprietors should have all such envelopes marked "Guests' Envelope," using for their own use a different envelope.

Identification.—In the case of money-orders and registered letters, the parties applying for them, if not known, should prove their identity in the same manner as in banking institutions.

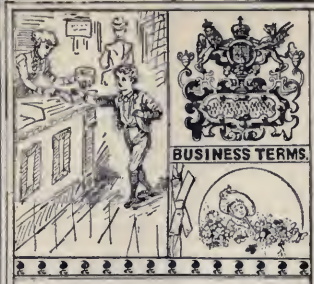
Letter Boxes.—In cities of free-delivery, patrons should provide letter boxes at their places of business or private residences, in order to save delay in the delivery of mail-matter.

Lost Mail-matter.—Inquiries relative to lost or missing mail-matter, should be addressed to the Chief Post Office Inspector, Post Office Department, Washington, D.C., to whom all losses or irregularities should be reported as soon as possible after the loss. Give the specifications named under Dead Letter Office.

Mailing Boxes.—When dropping packages into mailing boxes, see that they fall into the box, and do not stick in the passage. Mail-matter deposited in mailing boxes and receptacles cannot be reclaimed by any one under any circumstances.

Mailing Letters, etc.—Mail early, especially when large numbers of letters, circulars, etc., are mailed at once. When large numbers of letters or circulars are mailed together, addressed to the same destination, tie them in bundles with the addresses facing the same side. In addressing matter to foreign countries, give the name of the post-office and country in full. (See Directing Mail-matter.)

Postage.—On first-class matter the postage is to be prepaid by affixing stamps; but one full rate may be affixed, and the residue collected



of the addressee before delivery. **On** second-class matter, such as newspapers and other periodicals, when sent by the pound rate, the postage is prepaid in money. **On** third- and fourth-class matter, such as books, the postage must be prepaid by stamps affixed.

Registration.—All valuable matter should be registered. The name and address of the sender must be given on the outside of the envelope or wrapper. Money should be sent by a money-order or registered letter; otherwise it is liable to loss.

Stamps.—Postage stamps should be placed on the upper right-hand corner of the addressed side of all mail-matter, care being taken that they are securely affixed.

Transients.—For the manner of addressing mail-matter to transients, see General Delivery.

Unmailable Matter.—This includes all matter which is by law, regulation or treaty stipulation, prohibited from being transmitted in the mails, or which, by reason of illegible, incorrect, or insufficient address of person or office, cannot be forwarded to destination or delivered to the person for whom it is intended. Unmailable matter is thus classified: (1) Held for Postage.—Or matter insufficiently prepaid to entitle it to be forward. (2) Misdirected.—That is, matter without address, or so incorrectly, insufficiently or illegibly addressed that it cannot be forwarded. (3) Destructive.—That which from its harmful nature is forbidden to be in the mails. Among these are: Poisons, explosive or inflammable articles, live or dead animals, insects or reptiles, fruits or vegetable matter liable to decomposition, comb honey, guano, or any article exhaling a bad odor, malt, vinous, or spirituous liquors, and liquids liable to explosion, spontaneous combustion or ignition by shock or jar. (4) Coin and Jewelry.—Coin, jewelry, or other precious articles which are prohibited from being sent in the mails to foreign countries. (5) Obscene Matter.—This embraces: Lewd, lascivious, or obscene books or other publications of an indecent character; articles designed to prevent conception or procure abortion; articles intended for indecent or immoral uses; and advertisements or notices relating to any of the preceding. (6) Lottery Matter.—Letters and circulars known to be concerning lotteries, gift concerts or other similar enterprises, offering prizes, or concerning schemes devised and intended to deceive and defraud the public for the purpose of obtaining money under false pretenses. (7) Miscellaneous.—Matter so damaged in wrecks of mail cars or vessels, or other means, that it cannot be forwarded to its destination; matter found loose in the mails, as when separated from the envelope or wrapper, or which has been recovered from depredations on the mails. (8) Excess of Weight and Size.—Packages of the third and fourth class matter exceeding four pounds, except single books and official matter of the Government.

POSTER.—A bill or placard intended to be posted in public places, calling attention to some meeting, performance, etc.

FORM OF POSTER FOR WRITING SCHOOL.

WRITING SCHOOL.

See Small Bills Giving Full Particulars

—OF—

JAMES W. HAMMOND'S

WRITING SCHOOL,

SOON TO BEGIN HERE.

Specimens of his Penmanship

MAY BE SEEN

AT THE POST-OFFICE.

POUND.—A public enclosure for the safe custody of stray animals, until reclaimed. **Pound-breach**, breaking open a pound in order to release the animals confined in it. **Pound-master**, a person chosen to have charge of a pound.—Most townships maintain one or more pounds. The statutes of the several states prescribe the manner of advertising such estrays and the fees of the officers. In a few states stray animals may be taken and held by any householder.

POURPARTY.—The division among several persons of lands before held in common. **Poursuivant**, a messenger of the king; a follower or pursuer.

POWER.—Authority given by one to another to act for him. **Power of Attorney**, a written instrument by which one person grants authority to another to act for him. The donor of the power is called the principal; the donee is called the attorney, or if appointed by a corporation aggregate to receive administration, the synic. A power only authorizing the attorney to vote is called a proxy; a power which simply authorizes the attorney to appear in an action, and confess the action or suffer judgment to go by default, is called a warrant of attorney. All others are simply powers of attorney, and are either general or special. (For form see Attorney).

PRACTICE.—The particular form of conducting suits at law, through their various stages, according to the principles and rules of the different courts. **Practice Court**, a court in which points of practice are discussed and decided. **Practice Reports**, reports of cases deciding some point of practice. **Prayer**, a request that a court will grant that which the petitioner desires.

PREAMBLE.—The introduction to a discourse or some writing; the introductory part of a constitution in which the reasons are given why the constitution is established; also similarly applied to a bill or statute. **Prebend**, a stipend granted to an ecclesiastic.

PRECEDENCE.—The right of going before; the right to a more honorable place; adjustment of rank. **Precedents**, things which may serve as examples or rules to be followed in future actions of the like kind; decisions of courts which serve as models. **Precept**, a command in writing by a magistrate or judge; an authoritative rule.

PRECIOUS METALS.—A phrase usually applied to gold and silver. **Preemption**, act or right of purchasing before others; the right of a nation to detain merchandise passing through her territories, in order to give her subjects the preference of purchase.

PREFERRED STOCK.—Stock taking preference over the ordinary stock of a corporation. A dividend is declared and paid on preferred stock before any can be declared on common stock. **Preference**, in a general assignment, a direction that certain ones of the creditors shall be paid their entire claims, though nothing is left for the rest. **Premeditation**, a previous plan or design to commit some crime.

PREMISES.—Houses or lands; the previously mentioned facts; in a deed, the things, as houses or lands, proposed to be conveyed or granted to another. **Premium**, advance above par value; the sum to be paid annually or otherwise for insurance or indemnity. **Premium Note**, a note given in payment of a premium or a part of it. **Prepense**, preconceived or premeditated; as, malice prepense. **Prerogative**, an exclusive or peculiar right or privilege which one person has over another.

PRESCRIPTION.—In medicine, the direction of remedies for a disease, and the method of using them; in law, a title to incorporeal hereditaments, acquired by time and use, and allowed by law.

PRESENTMENT.—The written notice of an offense taken by a grand jury, from their own knowledge or observation, without having a bill of indictment laid before them; also the writing which contains the accusation so presented. **Presentment for Payment**, the presentment of a bill of exchange or promissory note should be made on the day of its maturity; i.e., on the last day of grace, and not before, and must be made personally, either by the holder or his authorized agent, and cannot be made by a written demand (see Demand) sent to him through the post-office. (See Protest and Responsibility).

PRESIDENT.—An officer appointed to preside over and control the proceedings of a number of persons; the highest officer of a republic. **President of United States**, the chief executive of the nation. In the election of President, the nominating conventions several months before the date of election nominate candidates for the Presidency. The qualifications of President are (1) He must be a native citizen; (2) He must be at least 35 years of age; (3) He must have been a resident of the United States for at least fourteen years. In choosing a President, the people of each State choose a body of men called Electors. The number of these is the same as the number of senators and representatives which the State sends to Congress. The electors are chosen in all the States on the Tuesday next after the first Monday in November of each leap year (including 1900). They meet on the first Wednesday in December, usually at the capital of their respective States, and make three lists, each containing the names of the persons voted for, and the number of votes for each. One list is sent by a messenger to Washington, another is sent by mail, and the third is delivered to the judge of the U.S. Court for the district in which the electors meet. On the second Wednesday in February, the two houses of Congress meet as one body, and the president of the senate opens the certificates. The votes are counted, and the person having the majority is declared elected. If there be no majority, the representatives proceed at once to choose a president. At noon on March 4, the President is inaugurated by taking the oath of office (see Oath), administered by the chief justice of the supreme court. **Presidential Succession**, in case of the removal, death, resignation or inability of both the President and Vice President, then the Secretary of State shall act as President until the disability of the President or Vice-President is removed or a President is elected. If there be no Secretary of State, then the Secretary of the Treasury will act; and the remainder of the order of succession is: The Secretary of War, Attorney-General, Postmaster-General, Secretary of the Navy, and Secretary of the Interior.

PRESS.—The art or business of publishing; the whole literature of a country—usually restricted to the literature of newspapers. In writing for the press, the following list of subjects will be of advantage to the writer: Accidents, Amusements, Births, Burglary, Business Prospects, Celebrations, Cemeteries, Change of Business Firms, City and Country, Churches, Convicts, Crimes, Crops, Dissolutions of Partnership, Deaths, Discoveries, Distinguished Arrivals, Divorces, Elopements, Election Intelligence, Enactment of Laws, Entertainments, Excursions, Executions, Exhibitions, Facts and Figures, Failures, Fairs, Festivals, Fires, Foreign Affairs, Fraternities, Important Statistics, Health of Community, Improvements, Inventions, Lectures, Marine Intelligence, Marriages, Murders, Needed Improvements, New Buildings, New Comers, New Manufactures, Notices, Parties, Parties Leaving Town, Paupers, Personal Mentions, Presentations, Prices of Commodities, Railroads, Sales of Real Estate, Scandals, Schools, Secret Societies, Shows, Sickness, Society Gossip, State and Nation, Strange Phenomena, Suggestions, Surgical Operations, Telegraphs, Telephones, Theaters, Trades, Violation of Law, Weather.

PRESUMPTION.—A supposition previously formed, in the absence of any direct evidence to the contrary; blind or headstrong confidence. **Presumptive Evidence**, evidence not direct or positive; that which shows the existence of one fact by proof of the existence of another, from which the first may be inferred. **Presumptive Heir**, one who would inherit, if things were to remain in their present state, but whose succession may be defeated by the contingency of some nearer heir being born. **Preterition**, the omission of a child's name in the father's will, thereby rendering the will void.

PRICE.—The sum of money at which a thing is valued. An agreement to pay money is a necessary element of a sale, but it is not necessary that a price be agreed upon, for in every sale where the price is not fixed there is an implied agreement that the buyer shall pay what the goods are reasonably worth. **Price Current**, a published list of the market value of certain articles of merchandise, stocks, bonds, and other securities. **Price List**, a printed or written list of articles for sale, with prices attached. Price lists are made out by manufacturers and dealers, as prices to be charged, subject to the deductions of certain rates per cent., which fluctuate according to the cost of manufacturing, demand for goods, etc. By changing the rate of discount, the prices are changed without altering the price lists.

PRIMARY EVIDENCE.—The chief or best evidence in a case. **Primary Contract**, a contract of guaranty implies the existence of some other contract made, which is the primary contract, the guaranty being the secondary. In a sale, the primary is the sale, and is between the seller and buyer; the secondary is between the seller and surety. In a clerkship, the primary is between the employer and clerk; the secondary is between the employer and surety. **Primogeniture**, seniority of birth; a law thus designated; a right which belongs to the eldest son and his heir to succeed to property.

PRINCIPAL.—An employer; the head of a commercial house; the sum on which interest accrues. **Principal Debtor**, the one for whom a guaranty is made. In a note it is the maker, and his contract is to pay, unconditionally. In an unaccepted draft, it is the drawer, and his contract is conditional, to pay if the person drawn upon does not. In an accepted draft, it is the acceptor, and his contract to pay is unconditional. If the principal debtor fail to pay the obligation when it is due, it is said to be dishonored. (For Principal and Agent, see Agency).

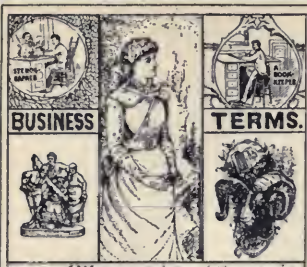
FORM OF PRINCIPAL AND SURETY NOTE.

$500. CHICAGO, AUGUST 1, 19...

Sixty days after date I promise to pay ... Edward Wamm ..., or order, ~~Five Hundred~~ Dollars, with interest, value received.

... JOHN WATTS ..., Principal.
... ISAAC NEW ..., Surety.

PRINCIPLES.—Fundamental truths, or settled rules of action. Principles of law are rules or axioms founded in the nature of the subject; hence, courts recognize, but do not establish, principles of law. **Priority**, a period of tenure of less time or less ancient, in comparison of another; state of being first in time, place, or rank. **Printing Office**, a place where the printing of books, newspapers, etc., is carried on. **Prison**, a building for the punishment or safe custody of criminals. Prison



ers of War, members of the opposing army or navy captured in war. They may be confined, and even fettered, if there is reason to apprehend that they will rise against their captors, or make their escape, but must be treated with humanity.

PRIVATE CARRIER.—One who transports goods or passengers, but only occasionally, or for only particular persons. **Private Road,** a road which only the owners of certain property have a right to use. A right of way is appurtenant to the land itself; i.e., it is a right of one owner to pass over the land of another in order to get an outlet. Such a way must be used only for its original purpose; thus, if the right granted be only a foot path, it cannot be used for horses. It may, however, be used as often and by as many as the owner of the right chooses to allow.

PRIVATEERS—Ships or vessels owned by private individuals, authorized by a belligerent power to carry on a maritime war against the enemy. To encourage privateering, the government allows the owner and the crew of a privateer to keep the property captured as their own. **Privies,** persons who have an interest in an action or thing, or any relation to another. **Privileged Communication,** a confidential communication, or a communication between a counselor and his client.

PRIVY CHAMBER.—A private apartment in a place or mansion. **Privy Council,** the principal council of a State, held by the sovereign. **Privy Seal,** a seal used by sovereigns in subordinate matters, or prior to the use of the great seal. **Privy Signet,** the privy seal of the crown, in the custody of the Secretary of State.

PRIZE.—A capture from an enemy applied to taking a vessel at sea; a reward offered to him who shall accomplish a certain condition; the money or goods gained by a lottery ticket; a reward or premium. **Prize Court,** a court of admiralty having jurisdiction in prize cases.

PROBABILITIES OF LIFE.—The likelihood of persons attaining certain ages in life. Various tables are constructed to illustrate the probabilities of life at various ages. (See Expectation, under Weights and Measures). From the tables above referred to, one can perceive at a glance what amount of propability there is of a person of average health surviving any given number of years.

PROBATE.—Official proof, particularly of a will. **Probate Court,** a court presided over by one judge, who decides upon the authenticity of wills, the administration of estates, the appointment of guardians to minors and others, and all matters pertaining to the settlement of estates of deceased persons and wards. The law establishes one probate court in each county, and fixes the times and places of holding the court sessions. **Probate of Will,** the proof, before a probate judge, that an instrument offered to be proved is the last will and testament of the person alleged to have made it.

PROCEEDING.—The general form in which actions are brought and defended. **Proceeds,** result, or sum realized from a sale. **Process,** the act of bringing the defendant into court to answer; also the name for judicial writs.

PROCLAMATION.—A public notice given by a sovereign or supreme authority of a state to the people; a notice publicly given of anything. **Proctor,** one who manages another's affairs; used chiefly in ecclesiastical and admiralty law. **Procuration,** a written document, either a letter or power of attorney, by which a person is empowered to transact the affairs of another. When the representative signs a paper, he adds to his name "per procuration." Also the money which parish priests pay annually to the bishops or archdeacons. **Procuress,** a woman who procures females for the purpose of prostitution.

PRODUCE.—A general name for farm products. **Produce Broker,** a commission merchant who deals in produce. **Produce Note,** a written engagement to deliver specific articles to a specified amount. It is not assignable by mere endorsement. The maker of the note must be able to prove that he was ready at the proper time and place, and continued ready, to deliver the articles, or he may be compelled to pay their value in money.

FORM OF PRODUCE NOTE.

$75. WINCHESTER, Nov. 1, 19...

For value received, we promise to pay to... Jessie Potts..., on demand, ~~Seventy-Five~~ Dollars, in merchandise at our store.

WILLIAM BISHOP & Co.

The following form of assignment may be endorsed on the back of a produce note:

For value received, I assign the within Note to... John Williams..., without (or with) recourse, this 10th day of November, 19....

...Arch E. Small...

PROFESSION.—Any business or calling engaged in for subsistence, not being mechanical, in trade or in agriculture, and the like—opposed to a trade; the act of becoming a member of a religious order; the collective body of persons engaged in a particular art or profession; as, the legal or the medical profession.

PROFIT.—The gain after deducting expenses. **Profit and Loss,** the title of a ledger account, which is the same as Loss and Gain, which see. Variations in value may arise from modifications by natural causes, by labor and skill, by the variations of supply and demand, or by speculation. A merchant's profit is the compensation paid him by his customers for his services in furnishing the goods they want, and compensation for risk assumed, and for skill in doing business.

PROHIBITION.—A writ by a superior to an inferior court to stay proceedings in a cause; the act of forbidding or interdicting. **Prohibitionist,** one who is favorable to the imposition of such heavy duties on certain goods as almost to amount to a prohibition of their importation or use.

PROMISE.—An agreement to do or not to do a particular thing at some future time. (See Agreement and Contract). **Promise of Marriage,** a mutual contract made by a man and woman, agreeing to marry each other. **Promissory Note,** a written instrument by which one person engages or promises to pay a certain sum of money (or goods) to another at a specified time. A note is negotiable when it contains either of the words order or bearer, and may be transferred to another. In some States the words "without defalcation" must be inserted in the note to render it negotiable. The words "value received" are not necessary to render a note negotiable, but they imply a consideration, which is necessary to make a promise binding on the maker of it. The person who promises to pay is called the promisor, maker, or drawer. The person to whom the note is made payable is called the payee. The person who writes his name upon the back of a note is called the indorser; and the person to whom it is transferred by indorsement is called the indorsee. A note given on Sunday is void, but the original consideration will hold. A fraudulent or illegal consideration renders a note void. A note as a gift is void, from want of consideration, unless in the hands of a third party. In most of the States notes are not legally due until three days after the time specified, which three days are called days of grace. Demand for payment must be made upon the last day of grace, except it fall upon Sunday or a legal holiday,

when it must be made upon the day preceding. (See Endorsement and Presentment for Payment). **A** person who cannot write, in giving a note, should have a person to testify to the genuineness of his mark. **Unless** so specified, notes do not bear interest until after maturity. **A** note given by a minor cannot be enforced against him, unless he ratify it after becoming of age. **If** a note or bill of exchange be lost, payment must be demanded and notice given as if the note were still in possession. **If** a note be paid before due, and afterward come into the hands of a bona fide holder, he can enforce payment from the maker at maturity. **If** no time is specified, a note is payable on demand. **If** it is made payable to a fictitious person, it is payable to bearer. **The** amount of a note should be written out in words and also in figures; in case of disagreement, the amount in words takes precedence. **If** a note be dishonored or is over-due, it is not negotiable; but is subject to all the equities which the maker may have against the original payee. **If** "with interest" is included in a note, it draws the legal rate from the time it is made. **If** a note is to draw a special rate of interest, the rate must be expressed. See the following in their proper order for the forms:

Accommodation Note	Mortgage Note
Bank Note	Negotiable Note
Chattel Note	Non-Interest-Bear. Note
Collateral Note	Non-Negotiable Note
Demand Note	Note of Wholesale House
Individual Note	Note Payable at Bank
Installment Note	Note to One's Own Order
Interest-Bearing Note	Note Without Grace
Joint Note	Partnership Note
Joint and Several Note	Principal and Surety Note
Judgment Note	Produce Note
Married Woman's Note	Sealed Note
Merchandise Note	Swindling Note

PROMOTERS.—Persons who prosecute offenders in their own names, and are entitled to a part of the fines and penalties.

Prompt, a limit of time given for the payment of an account for produce purchased, this limit varying with different goods.

Promulgation, the ordering of a law published, and causing it to be executed.

PROOF.—The perfection of evidence; the conviction of the reality of an alleged fact, in the minds of judge and jury, through the medium of evidence. **Proof of Deed**, an acknowledgment of it by an authorized person. **This** is an essential pre-requisite to the right to record, and unless the instrument is properly acknowledged, its record is void. Proof by a subscribing witness will in some States supply its place.

FORM OF PROOF BY SUBSCRIBING WITNESS.

City and County of....., ss:

On this...10th... day of...July..., in the year 19..., before me personally came...M.T. Fox..., a subscribing witness to the within instrument, with whom I am personally acquainted, who being by me duly sworn, said that he resided in the city of.....in the State of.....; that he was acquainted with...John S. and Ella Cox.., and knew them to be the persons described in, and who executed the said instrument; and that he saw them execute and deliver the same; and that they acknowledged to him (the said...M.T. Fox), that they executed and delivered the same, and that he (the said...M.T. Fox..), thereupon subscribed his name as a witness thereto at their request.

...Caleb Marshall...
Notary Public
for the City and County of.....

PROPERTY.—The highest right which one can have in anything, to the exclusion of others. **The** right of property is based upon the necessity of having to provide for one's self. **In** Book-keeping when journalizing, property is debited, under an appropriate title, as Merchandise, Real Estate, Cash, etc., when it comes into our possession, and credited when it goes out from our possession.

FORM OF PROPRIETOR'S ACCOUNT.

Dr. PROPRIETOR. Cr.

Feb.	1	Amt. Assets	3000 00	Feb.	1	Invested	1000 00
"	10	Private A/c	100 00	"	28	Net Gain	70 00
"	28	Pres. Worth	670 00				
			1070 00				1070 00
				Mar.	1	Pres. Worth	670 00

PROROGATION.—A continuance of Parliament from the end of one session till the commencement of another, by royal authority. **Prosecution**, a criminal suit, intended to bring an offender to trial and punishment by due course of law. **Prosecutor**, one who prosecutes another in the name of the government, and may be either public or private. **Prosecuting Attorney** an officer chosen in each county or each judicial circuit and district, to represent the State in the different courts holding terms with in the county. **His** chief duties are in prosecuting violation of the criminal laws of the State.

PROSTITUTION.—The act or practice of offering for sale that which ought not to be sold; as, ability or influence; **the** act of offering the body to an indiscriminate intercourse, sexually, with men.

PROTECTIVE TARIFF.—Rates of duty fixed higher than the uniform rates, on certain imported commodities, for the protection of home manufactures.

PROTEST.—Presentation of an instrument to the principal debtor for payment or acceptance, and sending notice of its non-payment or non-acceptance to those secondarily responsible; **a** written document sometimes drawn up by a notary public, to be attached to commercial paper.

FORM OF NOTICE OF PROTEST.

Chicago, March 10, 19...

Please to take Notice:

That a draft drawn by yourself on Michael Shiel, of Chicago, for the sum of Five Hundred Dollars, dated March 3, 19..., was this day Protested for non-acceptance, and that the holder looks to you for the payment thereof, acceptance having been duly demanded by me and refused.

S.M. Mitchell.,
[Seal] Notary Public.

An acceptance "supra-protest" is the acceptance of the draft by some other person than the drawee, "for the honor of the drawee." If the drawee then refuse to pay it at maturity, it is protested, and the person making the "acceptance supra-protest" is liable for the amount. **A** protest is not absolutely required to entitle the holder of an inland bill to recover from the drawer or indorser when acceptance or payment has been refused; but **the** notice is necessary. (See Non-Payment Notice and Non-Acceptance).

PROTOCOL.—In diplomatics, the minutes or rough draft of a treaty, despatch, or other document; **a** record or registry; an original copy of any writing. **Provisions**, in the prices current under this head are included butter, cheese, beef, pork, bacon, shoulders, hams, and lard. **Proviso**, a conditional clause or stipulation in a deed or other legal writing, beginning with 'provided that,' and upon which the validity of the instrument depends.

PROVOST.—The chief magistrate of a city or town; **a** governing officer of some corporations or societies. **Proxy**, a person appointed in the stead of another, to represent him; **an** annual payment made by the parochial clergy to the bishop.

FORM OF PROXY.

Know all Men by these Presents, That I,...George Farmer...., do hereby constitute and appoint...F.S. Cox...attorney and agent for me, and in my name, place, and stead, to vote as proxy at the annual election for (here insert the name of officers, etc.), as fully as I might or could were I personally present.

In witness whereof, I have hereunto set my hand and seal, this 15th day of...October...19...

Witness, } ..George Farmer..[L.S.]
Henry Murray..

PUBERTY.—The age at which persons are capable of begetting or bearing children; in law, the age of 14 in males, and 12 in females.

PUBLIC AGENT.—An agent of the people; an officer of the National, Municipal, State, or other Government. **Public House**, a common inn, tavern, or hotel. **Public Law**, the law of nations. **Public Works**, a name usually applied to all great works that are being constructed for public use; as railways, telegraphs, docks, and all works constructed at public cost.

PUERILITY.—In law, the time from the age of seven years to the age of puberty (q.v.). **Pupillarity**, that part of one's life which includes infancy and puerility.

PUBLIC MEETINGS.—"Calls" for public meetings should be clear, distinct, and brief, yet sufficiently explicit to convey the purpose of such meetings, also the time and place. The general form of the call depends upon the nature and purpose of the meeting, and must be varied according to circumstances. (See Celebrations).

FORM OF CALL FOR SCHOOL MEETING.

The friends of Education are requested to meet at the house of L.S. Comstock, in Peach Grove, Saturday evening, May 10, 19..., at 8 o'clock, to take action relative to opening a public school in this vicinity. The meeting will consider the selection of directors, the location of the school building, and the feasibility of opening a school this fall.

(See Parliamentary Law—Index).

PURCHASE.—To buy, or obtain at an expense of labor, skill, etc.; anything acquired by paying a price in money. **Purchase Money**, the sum which is agreed to be paid for the thing purchased. **Purgation**, the act of clearing one's self of a crime charged against him. **Purlieu**, an enclosure; ground on the borders of a forest. **Purpresture**, an inclosure by a private individual of a part of the public domain. **Put**, a term used in pleading, signifying to select or demand.

PUTATIVE.—Supposed, or reputed. **Putative Father**, a phrase applied to the father of an illegitimate child. **Putative Marriage**, a marriage forbidden by law, on account of an impediment in one of the contracting parties.

QUACK.—An ignorant pretender to medicine; any boastful pretender to skill and knowledge not possessed. To call a regular physician a quack is actionable. **Quadroon**, the offspring of a white person and a mulatto.

QUALIFICATION.—That which makes a person or a thing fit or requisite for anything. **Qualifications for Voting**, as a rule, a voter at a general election must be a male citizen of the United States, who has attained 21 years of age, who has resided in the State from 6 months to 1 year, in the county from 3 to 6 months, in the town from 30 to 60 days, and in the precinct from 10 to 30 days, next preceding the election. Women are entitled to vote at school elections in several States, and to full suffrage in one or two States.

QUALITY.—The relative condition of articles as to kind; used also to denote relative value. **Quantity**, any determinate bulk, weight, or number.

QUARANTINE.—Restraint of intercourse to which a ship, dwelling, or town is subjected on account of being infected with some contagious disease. Quarantine is required by the health laws of the different States and by the laws of Congress vessels are to be subjected to the health laws of the State at whose ports they arrive. The usual time for persons to remain on board of ships coming from infected ports is forty days; also the space of forty days, during which a widow has a right to remain in the principal house of which her husband died seized.

QUARTER DAYS.—The four days of the year on which rent payable quarterly becomes due. **Quarter Seal**, the Scotch seal kept by the director of the chancery. **Quarter Sessions**, a general court which is held quarterly for the purpose of trying criminals, and civil actions. **Quash**, to overthrow or annul a legal proceedings. **Quasi**, as if, or in a manner.—A term denoting a resemblance. **Quasi-contract**, an implied contract, or one not formal, yet having full force. **Quasi-corporation**, a corporation or society not vested with the general powers of a corporation, yet recognized as aggregate corporations, with duties and privileges which may be maintained at law. **Quicksales**, a demand for and ready sale of commodities.

QUIT.—To resign or give up. **Quit Claim Deed**, a deed having the nature of a release. (See Notice to Quit).

FORM OF QUIT CLAIM DEED.

THIS INDENTURE, made the ...3d... day of...August..., 19..., between... ...L.D. Moody... of...Tipton..., county of...Tipton..., State of...Indiana..., party of the first part, and...John L. Frazier..., of...the same place..., party of the second part,

Witnesseth, that the said party of the first part, for and in consideration of ~~Five Hundred~~ Dollars in hand, paid by the said party of the second part, the receipt whereof is hereby acknowledged, and the said party of the second part forever released and discharged therefrom, has remised, released, sold, conveyed, and quit-claimed, and by these presents does remise, release, sell, convey, and quit-claim, unto the said party of the second part, his heirs and assigns forever, all the right, title, interest, claim, and demand, which the said party of the first part has in and to the following described lot, piece, or parcel of land, to wit: (Here give description of land).

To have and to hold the same, together with all and singular the appurtenances and privileges thereunto belonging, or in anywise thereunto appertaining, and all the estate, right, title, interest, and claim whatever, of the said party of the first part, either in law or equity, to the only proper use, benefit, and behoof of the said party of the second part, his heirs and assigns forever.

In witness whereof, the said party of the first part hereunto set his hand and seal the day and year above written.

Signed, sealed, and delivered in presence of } ...L.D. Moody... [L.S.]
...A.L. Markels... }

QUORUM.—The number of persons belonging to a corporation or other body, required to transact business. In Congress, a majority of each House constitutes a quorum to do business. In the House of Representatives, a quorum for the election of President consists of a member or members from two-thirds of the States, and a majority of all the States. In most of the State legislatures a majority constitutes a quorum; in some two-thirds or three-fifths are required.

QUOTA.—The share, part, or proportion assigned to each; a tax to be levied in an equal manner. **Quotation**, the citation of some law, case, or authority, to support or establish some desired position. **Quotations**, the published current prices of produce, stocks, bonds, freight rates, rates of exchange, etc.; a statement of the prices of merchandise given for the information of correspondents.

QUO WARRANTO.—A writ entered before the proper tribunal, to inquire by what warrant a person or corporation exercises certain powers.

RANSOM.—Price paid for the freedom of a prisoner, for the restitution of goods taken by an enemy, or for pardoning some great offense. **Ransom Bill**, a war contract, valid by international law, for the ransom of property captured at sea, and its safe conduct into port.

RAPE.—Sexual intercourse with a woman by a man, forcibly and against her will. **Rapine,** the act of plundering, or taking a thing against the owner's will, openly and by violence. **Rasure,** to scratch or rub out some part of a printed or written instrument, so as to prevent it from being read.

RATE.—The act of ascertaining the amount of tax one shall pay, by affixing a valuation on his estate according to its value or income. **Ratification,** the act of confirming or making valid one's own act, or that of another; **an** adoption by the principal, either by words or acts, some unauthorized act after it has been performed by some one as his agent; **the** consent by a minor, after he becomes of age, to be bound by a previous act. **Ratihabition,** agreement, consent, or confirmation.

REAL ACCOUNT.—In book-keeping, an account kept with realities, and includes all accounts of effects or things dealt in; as, real estate, cash, merchandise, bills receivable, bills payable, etc. **Real Action,** an action brought for the recovery of lands, tenements, or hereditaments. **Real Contract,** a contract relating to real property; a contract which requires the interposition of a thing as the subject of it. **Real Estate,** a term signifying land in its most enlarged acceptation, including everything that legally passes with it in making conveyance of the land. **Real Estate Account,** in book-keeping, an account kept with real estate, which includes all fixed property, and is Dr. for its cost, and Cr. for what it brings. On closing the account at any time, for profit or loss, it is Dr. for the actual worth of what remains on hand. **An** outlay for the permanent improvement of real estate, belongs to the Dr. side of this account; but for temporary improvement, to the Dr. side of Expense Account.

FORM OF REAL ESTATE ACCOUNT.

Dr. REAL ESTATE. Cr.

19— Dec.	1	Sund. a/c.	4500 00	19— Dec.	13	Sund. a/c.	700 00
"	17	N.H.C.	500 00	"	21	Balance	4500 00
	21	Loss & Gain	1100 00				
			5300 00				5300 00
Jan.	1	Balance	4600 00				

REAL LAW.—That law relating to real estate; or a law regulating specific property. **Real Estate Broker,** one who acts for others in buying, selling, mortgaging, and renting property. **Real Property,** the same as "real estate." **Reality,** a term signifying landed or real property.

REBATE.—An allowance or discount from the stipulated price, made in consideration of prompt payment, or for other reasons. **Rebellion,** a revolt, or attempt to overthrow the government to establish a different one. **Rebouter,** to repel or bar.

REBUTTER.—A plaintiff's answer to a defendant's rejoinder. **Rebutting Evidence,** evidence given by one of the parties in a cause, to repel or disprove facts given in evidence by the other side. **Recaption,** the act of retaking one's own goods, chattels, etc., from one wrongfully retaining them.

RECEIPT.—A written acknowledgment by one receiving money or other property, that it has been received. **Upon** satisfactory proof that a receipt was obtained by fraud, or given under error or mistake as to facts, it may be corrected at law or equity. **If** payments of importance are made, or disputes apprehended, receipts should always be taken. **One** is not bound by law to give a receipt, but courtesy and business practices require them. **A** complete receipt states (1) that a payment has been received; (2) the date of the payment; (3) the amount or article received; (4) from whom; and if for another, on whose behalf payment is made; (5) to what debt or purpose it is to be applied; (6) by whom received; and if for another, on whose behalf it was received. **An** agent may either sign his principal's name, followed by his own, using "per," or he may sign his own name, mentioning in the body of the receipt the principal's name. **If** a payment is made only in part, it is stated that the money was "received on account." **A** receipt for a sum "in full" of a debt mentioned, is legal evidence of the adjustment of the amount due. **A** receipt "in full of all accounts" does not affect claims which are not properly matters of account. **A** receipt "in full of all demands" prevents any further claim for any demand whatever, existing or known, or which ought to have been known, unless some serious or excusable mistake can be shown. **When** money is received as a loan or deposit, or to be used or paid out for the benefit of the party paying it, an admission of the purpose for which it was received should be embodied in the receipt. **On** paying a note, draft, or other instrument indorsed by the payee, a receipt is furnished by the return of the instrument itself. **A** receipt given by a person making his mark instead of writing his name should be witnessed. **In** drawing a receipt involving an agreement, care should be taken, as, in case of legal controversy, no explanation inconsistent with its language can be given.

FORMS OF RECEIPTS.

FOR MONEY ON ACCOUNT.

$100. INDIANAPOLIS, Feb. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars on account.
...ALBERT WESLEY...

IN SETTLEMENT OF ACCOUNT.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars, in settlement of account to date.
...ALBERT WESLEY...

IN FULL OF ALL DEMANDS.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars, in full of all demands to date.
...ALBERT WESLEY...

FOR RENT.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars, in full for six months' rent of residence at 1737 Sutter Street.
...ALBERT WESLEY...

FOR A PARTICULAR BILL.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars, in payment for a bill of Broadcloth of this date.
...ALBERT WESLEY...

FOR A NOTE.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
his note of this date, at six months, my favor, for ~~One Hundred~~ Dollars, which, when paid, will be in full for amount rendered to 1st instant.
...ALBERT WESLEY...

FOR MONEY ADVANCED ON A CONTRACT.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars, in advance, on a contract to build for him a dwelling house at 17 Noe St.
...ALBERT WESLEY...

FOR SERVICES.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars, in full for services to date.
...ALBERT WESLEY...

FOR INTEREST ON A BOND.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
~~One Hundred~~ Dollars, in full for six months' interest due this day, on his Bond to me, bearing date Nov. 3, 19... ...ALBERT WESLEY.

FOR PAYMENT BY HAND OF THIRD PARTY.

$100. INDIANAPOLIS, FEB. 3, 19...
Received from...M.C. GEORGEAN...
by the hand of...JOHN TEEL.....One Hundred ~~Dollars~~, in full for proceeds of sales of iron, Invoice bearing date Sept. 10, 19...
...ALBERT WESLEY...

In addition to the above forms, see Freight Receipt, Shipping Receipt, and Endorsement.

RECEIPT BOOK.—A book in which receipts are taken for the payment of money. **Receiver,** one who receives money to the use of another to render to him an account; a person appointed to take charge of the affairs of a corporation on its dissolution, and to distribute its property according to law. **Receiver of Stolen Goods,** one who receives goods from another, knowing them to have been stolen. (See Stolen Property). **Recession,** a re-grant.

RECIPROCITY TREATY.—A commercial treaty between two nations which confers equal privileges, and with a view to secure reciprocal trade. **Recital,** the act of stating something which has been done before, or the repetition of some former instrument. **Reclaim,** to insist upon a right, or demand again. **Reclamation,** a claim made against the seller of goods which prove deficient or defective.

RECOGNIZANCE.—An obligation of record which an individual enters into before a court, with a condition which requires him to do some specified act, generally to appear in court at a certain time. **Recognizee,** one to whom another is bound in a recognizance. **Recognizor,** one who enters into a recognizance. **Reconduction,** a renewing of a former lease.

RECORD.—An authentic or official copy of any facts or proceedings, intended to serve as evidence of something written, said, or done, and preserved in a court of record (q.v.). **Recorder,** a judicial officer in some cities, generally having the power of a judge; a county official, who records in books provided for that purpose, all deeds, mortgages, and other instruments of writing required by law to be recorded. **Recording** (of deeds, etc.), the act of handing the paper to the proper officer and having him record it. After a deed or mortgage has been signed, sealed, and delivered, to make the purchaser or mortgagee secure, it should be recorded in the proper office. (See Mortgage). Recording is not necessary as against the signer of a deed or mortgage, as the instrument itself is valid as against him. Third parties are the ones protected by the act of recording, the record showing them all instruments that have been recorded, and the law providing that all that have not been recorded shall be of no effect as to them. No unrecorded instrument can affect the interest of one who holds a recorded one from the same party, even though the other is prior to his.

RECOUPMENT.—The right of the defendant, in the same action, to claim damages of the plaintiff. **Recovery,** obtaining a right to something from an opposing party by a judgment from the court. **Rectification,** separating one liquid from another; also a second distillation of alcoholic liquors for the purpose of purifying them. **Reddendum,** to yield or pay; a clause in a deed, reserving something to the grantor.

REDEEM.—To pay the debt for which a pledge is held. (See Pledge). **Redemption,** the act of purchasing back from the buyer by the seller. (See Equity of Redemption). **Redhibition,** the avoidance of a sale because of a defect in the thing sold. **Red Ink Entry,** in book-keeping, red ink should be used whenever an entry is made out of its proper place. When the Dr. and Cr. sides of an account are equal there will be no red ink entry. In accounts showing losses and gains, and which have inventories, if a resource, it is entered on the Cr. side in red ink; if a liability, on the Dr. side in red ink, when the accounts are closed. When closing an account, the difference between the sides is entered on the smaller side in red ink, also the footing and closing lines are in red ink. **Red Letter Day,** a day whose recollection brings pleasure; a fortunate day. So named from the principal saints' days and the chief Church festivals being marked in the calendars in red letters. **Red Tape,** tape used in public offices for tying up documents, etc.; hence, official formality.

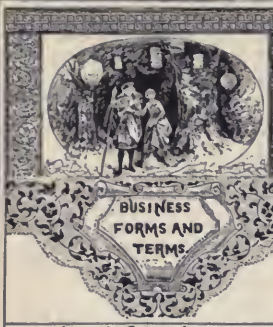
REDUNDANCY.—Foreign or superfluous matter introduced in a pleading. **Re-Entry,** the act of retaking possession of lands or tenements, which one has been deprived of. (See Landlord and Tenant). **Re-Exchange,** the expense chargeable on a bill of exchange or draft which has been dishonored in a foreign country, and returned to that country in which it was made or indorsed, and then taken up. The rate of re-exchange is regulated with respect to the drawer, at the course of exchange between the place where the bill of exchange was payable, and the place where it was drawn.

REFEREE.—One to whom anything is referred for hearing or decision. His judgment is called his report. **Regent,** a ruler or governor; one who rules in the place of another; a college professor. **Regicide,** the killing of a king.

REGISTER.—A book kept by public authority, for the purpose of entering facts as they occur; also the same as recorder (q.v.); a document issued by the Custom House, containing a description of a vessel, its name, tonnage, country, ownership, etc., which is kept on board during a foreign voyage as evidence of its nationality. Coasting vessels are enrolled, not registered. **Registrar,** the person appointed by law to keep the register. **Registration of Voters,** the making of a list of the names, previous to an election, of those presenting themselves, and showing upon examination that they are qualified electors. Only those whose names have been registered are allowed to vote on election day. **Registry,** the registration or enrollment of ships at the Custom House.

REHEARING.—The second consideration given to a cause by a court. **Re-Insurance,** a contract whereby an insurer of property, who has incurred too great a liability, or become dissatisfied with the nature of the risk he has contracted to take upon himself, obtains indemnity against loss, by his insurance from some other insurer. **Rejoinder,** the defendant's answer to the plaintiff's replication.

RELATIONSHIP.—State of being connected by birth, marriage, or other alliance. **Relationship** by blood exists in three degrees: (1) Right line descending; from the father to his children and so on down; (2) Right line ascending; from the son to the father and so on up; (3) The collateral line between brothers and sisters, uncles and aunts, both ascending and descending. In the following list will be found the chief titles of relationship: **Affinity,** relationship by marriage. **Alma Mater,** a fostering mother; the college or university where one has been educated. **Ancestors,** one's parents, grandparents, great-grand-parents, etc. **Aunt,** the sister of a parent. By courtesy the husband of an aunt is called an uncle, and the wife of an uncle is called an aunt. **Breed,** a stock of animals distinguished by certain qualities and peculiarities from other animals of the same species. **Brother,** a male born of the same parents with one's self. **Brotherhood,** the relationship of brothers; a number of persons associated together for the mutual interchange of kind offices. **Child,** offspring of human parents. **China,** the offspring of a Mulatto with a Chinese. **China-blanco,** the offspring of a White father with a Chinese. **Clan,** a number of families bearing the same name, united under a common chieftain, and supposed to be descended from a common ancestor. **Consanguinity,** relationship by birth. **Cousin,** the child of an uncle or aunt. **Cousins-German,** first cousins. **Quarteron,** male offspring of a White father with a Mulatta. **Dam,** female parent among beasts. **Daughter,** a female child. **Daughter-in-law,** the wife of a son. **Descendants,** those who derive their origin from a certain ancestor; as, the Jews are the descendants of Jacob. **Family,** a pair of parents with their own immediate offspring; a pair of parents, with all their descendants. **Father,** a male parent of the human species. **Forefathers,** the same as ancestors (q.v.). **Fourth Cousin,** the child either of a third cousin, or of a great-great-



grand-uncle. **Genealogy**, an account of one's ancestors. Every person has two parents, or ancestors, in the first degree; four grandparents, or ancestors, in the second degree; eight grandparents, or ancestors, in the third degree; 16 in the fourth degree; 32 in the fifth; 64 in the sixth; etc. **Generation**, a single set of descendants related in the same degree to a common ancestor. Children constitute the first generation, grandchildren, the second; etc. **Grandchild**, the offspring of a child. **Great-grandchild**, the offspring of a grandchild. **Grand Nephew**, the grandson of a brother or sister. **Grand-parents**, the parents of parents. **Great-grand-parents**, the parents of grand-parents. The term great may be repeated any number of times according to the degree of remoteness that is to be indicated in the ascending ancestral line. **Great Aunt**, or Grand Aunt, the aunt of a parent. **Great Uncle**, or Grand Uncle, the uncle of a parent. **Half-brother**, a brother by one parent, but not by both. **Half-sister**, a sister by one parent, but not by both. **Issue**, a term applied to the children of a man that is deceased; as, he died without issue. **Kin**, related by blood; as, we are kin or akin to each other; **relatives**; as, all my kin reside in England. **Kindred**, related by descent from a common ancestor; congenial; as, they are kindred souls; relatives by birth. **Kinsman**, a man of the same race or family. **Kinswoman**, a woman of the same race or family. **Kinsfolk**, persons of the same race or family. **Maternity**, motherhood. **Matron**, an elderly married woman. **Matrimony**, wedlock. **Mestizo**, the male offspring of a White father with an Indian. **Mother**, a female parent of the human species. **Mulatto**, the male offspring of a White father with a Negro. (The names of female offspring of mixed races are the same as for the male, with the terminal "o" changed to "a".) **Nation**, a numerous body of people speaking the same language, and descended from the same original stock; an independent body of people united under the same government. **Nephew**, the son of a brother or sister. **Niece**, the daughter of a brother or sister. **Offspring**, the young either of the human race, or of the inferior animals. **Parents**, the sources of being to other animals of the same kind. **Patriarch**, the father of a race; as, Jacob was the patriarch of the Jewish race. **Patron**, one who exercises the care of a father over some person or interest. **Pedigree**, a line of ancestors. **Progenitor**, a fore father. **Quintero**, the male offspring of a White father with a Cuarterona. **Race**, a succession of generations springing from a common parent; a division of the human family distinguished from other divisions by marked differences of features and complexion. **Second Cousin**, the child either of a cousin or of a grand-uncle. **Seed**, the immediate offspring and the remote descendants of an individual; as, the Jews are the seed of Abraham. **Sire**, a male parent among the inferior animals. **Sister**, a female born of one's own father and mother. **Son**, a male child. **Son-in-law**, the husband of a daughter. **Step-Children**, the children of a husband or wife by a previous marriage. **Step-Father**, a husband married by a mother after the death of the father. **Step-Mother**, a wife married by a father after the death of the mother. **Stock**, the common parent of a race; a race; as, the Jews were of the stock of Abraham; a breed; as, a good stock of cattle. **Third Cousin**, the child either of a second cousin or of a grand-uncle. **Tribe**, a series of generations descended from the same progenitor, as in the case of the Israelitish tribes. **Uncle**, the brother of a parent. **Zambo**, the male offspring of a Negro father with an Indian. (Female = Zambu). **Zambo-Chino**, the offspring of a Negro father with a Chinese.

RELATOR.—A teller or rehearsor; one who, by advice from the court, brings an information in the nature of a quo warranto.

RELEASE.—A discharge; a renunciation of the right of action. It is common for creditors to release their debtor on payment of a part of the debt. Such release is valid if signed and sealed. If a debtor agree to pay his creditors a certain proportion of their claims in consideration of a discharge of their demands, if he privately agree to give a better or further security to one than to others, the contract is void as to all.

FORM OF GENERAL RELEASE OF ALL DEMANDS.

Know all Men by these Presents, that I, ...John Jones..., of...Boston.., for and in consideration of the sum of ~~Five Hundred~~ Dollars to me paid by...A.R. Benton..., of...New York..., the receipt of which I do hereby acknowledge, have remised, released, and forever discharged; and I do for myself, my heirs, executors, and administrators, remise, release, and forever discharge, the said...A.R. Benton..., his heirs, executors, and administrators, of and from all debts, demands, actions, and causes of actions, in law or equity, of every kind, character, and nature soever, against him, from the beginning of the world to this day.

In witness whereof, I have hereunto set my hand and seal, this...3rd...day of...July...19...

Signed, sealed, and delivered in presence of ...G.H. Collinge... ...M.T. Masters... } ...John Jones...[Seal]

RELEASE OF FREIGHT.—A document signed by owners of vessels or their agents on receiving the payment of freight, giving a formal release to the dock companies and wharfingers to whom they had previously given notice not to deliver goods. **Relevant**, that which applies to the matter in question. **Reliction**, land which is increased by the retreating of the sea or a river.

RELIGIOUS LIBERTY.—The right of every individual to hold such form of religious belief as he chooses, or to have none at all, and to worship as he chooses, or not at all. **Religious Test**, a critical trial or examination as to one's religious views. The constitution of the United States, art. 6, s.3, declares that "no religious test shall ever be required as a qualification to any office or public trust under the United States."

REMAINDER.—An estate limited to lands and tenements after another estate in the same is determined. **Remanding a Cause**, the act of sending it back to the court from which it came, that it may be reconsidered. **Remedial**, that which tends to remedy or remove; as, a remedial statute, remedial justice. **Remedy**, a method provided by law of redressing a wrong, or of punishing a wrongdoer. A civil remedy is the method of redressing an injury inflicted by one person upon another. A criminal remedy is the method of punishing a wrongdoer for some wrong committed against society.

REMISSION.—The forgiveness of an offense; the release of a debt; the sending of money to a distant place. **Remittance**, the act of sending a money value from one place to another. **Renewal**, the act of granting again or repeating, as an insurance policy.

FORM OF RENEWAL OF FIRE INSURANCE.

PHILADELPHIA, Nov. 1, 19...

The German Insurance Company, of Boston.

Do insure...Edwin Arnold..., in consideration of ~~Forty-five~~ Dollars, being the premium on ~~Five Thousand~~ Dollars: this being a renewal of policy No...11,110..., it being hereby continued in force for one year, to wit, from Nov. 1, 19... to Nov. 1, 19..., at noon.

...S.K. Nunnelly... Sec'y. } ...Chas. B. Cox... Pres.

RENOUNCE.—To repudiate or give up a right. **Renouncing Probate**, repudiating the right to be executor of a will, by refusing to take out probate.

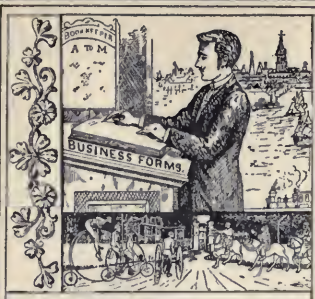
REMONSTRANCE.—A strong representation against a measure or proceeding.

FORM OF REMONSTRANCE.

To the Mayor and Common Council of...

Gentlemen:—The petition of the undersigned citizens and taxpayers of the.....wards of this city respectfully represents that they have learned that a petition is now before you praying for the privilege of (here insert what is opposed).

City of..... State of..... } Signed { Date.....



RENT.—Amount paid for the privilege of occupying another's premises. Usually it is in money, periodically paid; but it may be in services, profits, or anything else. **If** there is no agreement as to the amount, the tenant must pay what the use of the property is reasonably worth. **When** there is no special agreement as to the time of payment, the rent is due yearly, half-yearly, or quarterly, according to the usage of the country. **In** the absence of usage, the rent is due at the end of the year. **If** there be an express agreement to pay rent, the destruction of the property by fire or flood does not relieve the tenant. (See Landlord and Tenant, and Lease).

RENUNCIATION.—The act of giving up a right. **Repairs of Rented Property.** In the absence of special agreement, a landlord is under no obligation to his tenant to make any repairs to the property rented. Neither can the tenant make the repairs and deduct the amount from the rent. **On** the other hand the tenant must deliver up the premises when his lease has expired, in as good condition as that in which they were when he received them, ordinary wear and tear excepted. (See Improvements).

REPEAL.—The act of abrogating a law by an act of legislation. **Repetition,** an action which lies to recover money paid by mistake. **Repleader,** to plead again. **Replevin,** an action to recover possession of property wrongfully taken. **Replication,** the plaintiff's answer to the defendant's plea or answer.

REPORTER.—An officer connected with the supreme court, and usually appointed by the court. He is required to attend court personally at all its terms, and to make true reports of all its decisions, together with the facts involved in the cases adjudicated, and to publish these from time to time. **Reports,** a written or printed collection of judicial opinions and decisions. **Repository,** the name for some kinds of warehouses, as a carriage repository.

REPRESENTATIVES.—Members of the lower house of Congress, elected by the people of the States every second year. They must be at least 25 years of age, must have been a citizen seven years, and must live in the State from which he is chosen. The Congress next after the taking of a census determines the ratio of representation, and the number of Representatives, and apportions them among the States. In the first House of Representatives there were only 65 members, and the ratio was one to about 50,000 inhabitants. In order that the House might not grow too large, the ratio is increased as the population increases.

REPRIEVE.—A postponement of a criminal's sentence for an interval of time. Reprieves may be granted either by the President or by a Governor, after conviction by the United States courts. **Reprisal,** the act of seizing ships, or other property, as indemnity for unlawful seizure, or detention. Congress has exclusive power to issue a commission to a private individual, authorizing him to seize the property of a foreign nation or its subjects as a reparation for some injury. **Reprises,** deductions and payments out of lands, annuities, and the like.

REPUBLIC.—A government in which the power to enact and execute the laws is exercised by representatives elected by the people to act for them. A republic is sometimes called a commonwealth, because its object is the common happiness of all. **Repugnancy,** in law, an inconsistency between two or more clauses in the same instrument.

REQUISITION.—The demand of a right; the demand by one State or government upon another for the surrender of a fugitive from justice. A requisition is usually complied with, but there is no way to compel a Governor of a State to deliver up a criminal. **Rescind,** to cut off, abrogate, or vacate.

RESCISSION.—The act of abrogating or annulling contracts by mutual consent, or by one party, because of the breach of the contract by the other. **Rescissory Action,** an action to rescind or set aside a contract or a deed. **Rescussor,** a party who makes a rescue. **Reseller,** one who receives stolen goods, knowingly. **Reserve or Net Value,** in Life Insurance, a certain sum periodically set aside, and compounded, so that, as the age of the insured increases, the sum set aside will place a policy issued at the age of 30 for a premium of $100 in as safe a position as a new policy, issued at the age of 50 for a premium of $200. (See Life Insurance).

RESIDENCE.—Place where one resides; personal presence in a fixed and permanent abode. **Residuary Clause,** a clause inserted in a will, by which all the property is disposed of which remains after satisfying devises and bequests. **Residuary Legatee,** one to whom the residue of an estate is left by will. **Residue,** the remainder of an estate, after all liabilities and bequests are paid.

RESOLUTIONS.—Formal and deliberate modes of expressing the opinions and sentiments of a society, club or public assemblage. They should be written tersely and with great clearness. The preamble should set forth the cause of the resolutions which follow. It should always begin with the word "Whereas." The resolutions follow immediately after the preamble, each one beginning with the word "Resolved."

FORMS OF RESOLUTIONS.

ON THE DEPARTURE OF A CLERGYMAN.

Whereas, The Reverend George Bozell, D.D., has been, in the providence of God, called to labor in another part of Christ's vineyard, and has in consequence thereof tendered his resignation of the rectorship of this parish; and,

Whereas, We recognize a Divine influence in the circumstances which have induced our beloved pastor to sever the ties which have connected him with this church and its people; therefore, be it

Resolved, That the resignation of the rectorship of....., in this city, by the Rev. George Bozell, D.D., be, and is hereby, accepted, to take effect on the 1st day of September next.

Resolved, That the Rev. George Bozell has, by courtesy and kindness, by purity of life and doctrine, and by the faithful discharge of the duties pertaining to his holy office, secured the love and confidence of his people, which will follow and be with him in his new field of labor.

Resolved, That while the Rev. George Bozell's connection with this parish will close, agreeably to his wishes, on the 1st day of September next, his salary will continue until the first day of October next.

ON THE DEATH OF A MEMBER OF ANY ASSOCIATION OR SOCIETY.

Whereas, In view of the loss we have sustained by the decease of our friend and associate —— ——, and of the still heavier loss sustained by those who were nearest and dearest to him; therefore, be it

Resolved, That it is but a just tribute to the memory of the departed to say that in regretting his removal from our midst we mourn for one who was, in every way, worthy of our respect and regard.

Resolved, That we sincerely condole with the family of the deceased on the dispensation with which it has pleased Divine Providence to afflict them, and commend them for consolation to Him who orders all things for the best, and whose chastisements are meant in mercy.

Resolved, That this heartfelt testimonial of our sympathy and sorrow be forwarded to the —— of our departed friend by the secretary of this meeting.

ON THE DEATH OF A CLERGYMAN.

Whereas, It has pleased Divine Providence to remove our beloved pastor from the scene of his temporal labors, and the congregation who sat under his ministry, and profited by his example, are desirous of testifying their respect for his memory, and expressing their earnest and affectionate sympathy with the household deprived by this dispensation of its earthly head; therefore, be it

Resolved, That in the death of our beloved pastor, this congregation loses a faithful and affectionate shepherd, who was always active and zealous in his work as a minister; ever ready to succor the needy and distressed; one who was wise

BUSINESS FORMS.

in counsel and fearless in action; an honest and upright man whose virtues endeared him not only to the members of his congregation, but to all his fellow-citizens.

Resolved, That we tenderly condole with the family of our deceased minister in their hour of trial and affliction, and devoutly commend them to the keeping of Him who looks with a pitying eye upon the widowed and the fatherless.

Resolved, That while we deeply sympathize with those who were bound to our departed pastor by the nearest and dearest ties, we share with them the hope of a reunion in that better world where there are no partings, and bliss ineffable forbids a tear.

Resolved, That a copy of these resolutions be sent to the family of our deceased minister, as a token of our respect and veneration for the Christian character of a good man gone to his rest, and of the interest felt by his late congregation in those whom he loved and cherished.

ADOPTED BY A TEMPERANCE MEETING.

Whereas, The evil of intemperance is steadily increasing among us, and many who might otherwise become good and useful citizens are falling victims to this terrible curse, and

Whereas, One great cause of this increase of drunkenness is, in our opinion, the open disregard of the laws respecting the sale of intoxicating beverages on the part of the keepers of the bar-rooms and saloons of this place, who continue the sale of such liquors after the hour of midnight and on Sundays, although forbidden by law to do so; therefore, be it

Resolved, That a committee of seven be appointed by this meeting to investigate the extent of this violation of the law, and to lay the result of their labor before the Common Council of this city at its next meeting.

Resolved, That we call upon the mayor, aldermen, and the police force of this city, to enforce the law relating to the sale of liquors; and we hereby remind them that the people of this city are becoming awakened, and will hold them responsible for allowing the ordinances regulating the sale of liquors to be violated by the keepers of saloons, and the owners of bar-rooms.

TO MEMBERS OF THE LEGISLATURE.

Whereas, Owing to the peculiar situation of this town, the general road law of the State is partly inapplicable to us, and highly inefficient, and the circumstances of the case require a specific law; therefore, be it

Resolved, by the people of the town of Wilford, in town meeting assembled, That the Senators and Representatives of this district in the Legislature, be, and hereby are, instructed to procure the passage of a law exempting this town from the action of the general road law, and placing the repair and working of the roads entirely under the control of the local authorities.

RESOURCES.—Money and property of all kinds, together with any and all sums owing to us by others in notes, accounts, or otherwise. **An** account exhibits a resource, when it represents property on hand, or an amount owing to us. **The** excess in an account showing a resource or a loss will be on the Dr. side; showing a liability or a gain, on the Cr. side.

RE-SHIPMENT.—The act of transferring goods from one conveyance to another. **Respite**, forbearance, or continuation of time; temporary suspension of capital punishment. **Respondent**, one against whom an appeal is taken; **one** who goes security for another; **one** who answers in a suit, whether for himself or another. **Respondentia**, a loan upon the cargo of a ship, conditionally that if it be lost at sea, the lender loses his money.

RESPONSIBILITY.—State of being accountable or answerable; **the** having of sufficient property to pay all ordinary obligations. **The** responsibility of parties to commercial paper to the owner is: **I.** Those not responsible to the owner are: (1) The person upon whom a draft is drawn, until he has accepted; (2) The bank, in an uncertified check; (3) Sometimes, the drawer in a certified check; (4) Any prior owner, of any kind of paper, who has not indorsed it, or who has indorsed without recourse: **II.** Those responsible without demand being made on the principal debtor on the day of payment are: (1) Maker of note; (2) Acceptor of draft: **III.** Those responsible only when demand has been made on the principal debtor, and notice given them within the proper time: (1) Indorser of note; (2) Drawer of draft; (3) Indorser of draft; (4) Drawer of check; (5) Indorser of check. **The Things Necessary** for the owner of any of the ordinary kinds of commercial paper to do, to render the parties upon it responsible to him are: **I.** If it be a note without indorsers, *nothing*, the maker is responsible without demand: **II.** A note with indorsers: (1) Present it to the maker for payment, on the day it is due, and (2) If not paid, send notice of its non-payment, to each indorser, on that day or the next: **III.** A draft not yet presented for acceptance; **A.** If due at sight, or a certain time after sight, (1) Present it to the person drawn upon, for acceptance, as soon as possible; (2) If not accepted, send notice of its non-acceptance, to the drawer and each indorser, on the day or the day following the refusal of acceptance; **B.** If due at a specified time, (1) Present it to the person drawn upon, for acceptance, any time before it is due, and (2) If not accepted, send notice of its non-acceptance, to the drawer and each indorser, on the day or the day following the refusal of acceptance. (If accepted, see V); or (1) Present it to the person drawn upon, on the day it is due, and (2) If not paid, send notice of its non-payment, to the drawer and each indorser, on that day or the next: **IV.** An accepted draft: (1) Present it to the acceptor, for payment, on the day it is due, and (2) If not paid, send notice of its non-payment, to the drawer and each indorser, on that day or the next. **V.** An uncertified check: **A.** To make the drawer responsible, (1) Present it to the bank, for payment, at any time, and (2) If not paid, send notice of its non-payment to him, on the day or the day following the refusal of payment; **B.** To make an indorser responsible, (1) Present or send it to the bank, for payment, the day it is received from the indorser, or the next day, and (2) If not paid, send notice of its non-payment, to the indorser on that day or the next. **VI.** A certified check: **A.** To make the drawer responsible (when not discharged), (1) Present it to the bank, for payment, at any time, and (2) If not paid, send notice of its non-payment, to him, on the day payment is refused, or the next; **B.** To make the bank responsible, Present it to the bank, for payment, at any time; **C.** To make an indorser responsible, (1) Present or send it to the bank, for payment, the day it is received from the indorser, or the next day, and (2) If not paid, send notice of its non-payment, to the indorser, on that day or the next.

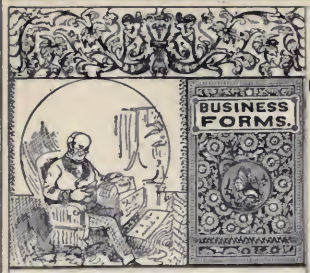
(See Endorse).

RESULTING TRUST.—A trust arising from the operation or construction of equity, and presumed to exist from the intention of the parties. **Resulting Use**, one raised by equity for the benefit of the feoffor who has made a conveyance without a declaration of its use.

RESUME.—To proceed or take up again after interruption; **a** summary or abstract. **Retail**, to sell in a small quantity. **Retail Ledger**, a ledger ruled so as to be convenient for a retail business.

FORM OF RETAIL LEDGER.
S.T. MARSH, No. 176 Market St.

		Dr.				Cr.	
1870.				1870.			
Oct.	4	1 lb. Cheese, 18c; 1 lb. Tea, 50c; Soap, 30c,	96	Oct.	10	Cash,	2 00
					31	Cash,	4 21
	7	Sugar, 75c; Spices, 50c; Pickles, 50c,	1 75				
	10	Flour, 90c; Candy, 30c; Pins 30c.	1 50				
	17	Potatoes 70c; Cocoanut, 50c,	1 20				
	31	Raisins, 50c; Oranges, 30c,	80				
			6 21				6 21



RETAIN.—The act of engaging the services of an attorney. **Retainer**, a fee by which a client engages an attorney-at-law to do certain business for him; the act of withholding what one has in his own hands, by virtue of a right claimed. **Retention**, the right of retaining property, or withholding a debt, until a debt due shall be paid.

RETIRE.—To relinquish business; to take up one's notes before due.

FORM OF RETIREMENT NOTICE.

Sir,—We beg to acquaint you that our late partner, ...Mr. John S. Wolff..., has retired from our firm by mutual agreement, and that we the undersigned, and ...Mr. Frank M. Wolff..., continue to carry on the business of ...Wolff, Walton & Whistler..., under the firm of ...Walton, Whistler & Wolff...

Respectfully referring you to our signatures, we are

Yours truly.

...Walton, Whistler & Wolff...

RETORSION.—When a sovereign or the head of a nation is not satisfied with the manner in which his subjects are treated by the laws and customs of another nation, he is at liberty to declare that he will treat the subjects of that nation in the same manner as his are treated. **Retract**, the act of withdrawing an offer or proposition, before it has been accepted. **Return Days**, days appointed by law for the return of writs. **Return of Warrant**, a short statement by an officer having made an arrest, of the manner in which the command has been executed. It is written on the back of the instrument, and signed by the officer. **Returns**, bills of exchange, or goods bought and transmitted as a medium of returning the proceeds of consignments; also the amount of goods sold.

REVENDICATION.—A suit brought by a party for the return of a thing; as, when a man demands the return of goods sold on credit. **Revenue**, the annual income of a State or nation, from all sources; the income of an individual. **Revenue Bills**, bills for raising money for the government, either by direct or indirect taxation. These laws must be passed by the House of Representatives first, but all other laws may originate in either House. **Revenue Cutters**, small vessels employed to aid revenue officers in the collection of duties, or to prevent smuggling. **Revenue Law**, a law imposing a tax or duty. **Revenue Officers**, the government officers employed in the customs or excise service, under the direction and authority of the Secretary of the Treasury.

REVERSION.—A payment, or the residue of an estate, which is not to be received, or a benefit which does not begin, until the happening of some event, as the death of a person. **Review**, a second examination, as for improvement or amendment; a public inspection of troops or ships by a superior officer. **Revisionary Interest**, a right to possession of property at the termination of a certain period, or upon the death of the holder.

REVIVAL.—The act by which a judgment is restored, after lying dormant for a year and a day, by writ of scire facias. **An** agreement to renew a just debt after it has been barred by lapse of time or limitation. **Revivor**, a bill used to revive or renew an original bill in equity, which has become inoperative.

REVOCATION.—The recall of a power conferred, or the vacating of an instrument previously made. A principal may take away the authority of an agent at any time; but there is a distinction between his right to revoke the agent's authority as to third parties and the right to break his agreement as to the agent. He may exercise the former right freely, but is responsible to the agent for any injury in the latter.

FORM OF REVOCATION OF POWER OF ATTORNEY.

Whereas, I, ...John Teel..., of the ...City... of... Cicero..., in the county of ...Hamilton..., and State of ...Indiana..., by my certain power of attorney, bearing date the ...3d... day of ...May..., 19..., did appoint ...A. S. Kohn..., of the ... City... of... Tipton..., in the county of ...Tipton..., and State of ...Indiana..., my true and lawful attorney, for me and in my name, to (here state what he was authorized to do, using the precise language of the power of attorney originally given him), as by the said power of attorney, reference thereto being had, will more fully appear:

Therefore, KNOW ALL MEN BY THESE PRESENTS, That I, ...John Teel..., aforesaid, have countermanded and revoked, and by these presents do countermand and revoke the said power of attorney and all power and authority thereby given to the said ...A.S. Kohn...

In witness whereof, I have hereunto set my hand and seal, this ...13th... day of ...November..., 19..

Signed, sealed, and delivered in presence of ...P. T. Lincoln... } ...John Teel...[L.S.]

REVOCATUR.—A term signifying that a judgment has been recalled for an error in fact. **Revolt**, an attempt by one or more of the crew of a vessel to overthrow the authority of those in command. **Revolution**, an extensive and sudden change in the constitution and government of a country. **Reward**, a remuneration for services; a sum paid or taken for doing, or forbearing to do a certain act; the compensation actually so paid. **Rider**, a schedule, or a small piece of paper, added to some part of a record. **Rigging**, the ropes which support the masts and extend the sails of a ship.

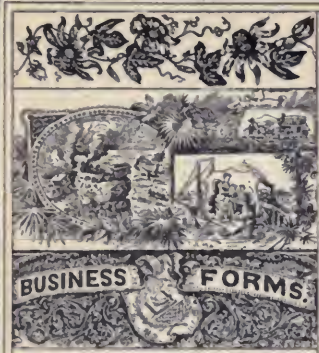
RIGHT.—A justly founded claim. We have a right to do whatever we think necessary for our own safety and happiness, provided we do not trespass upon the rights of others. **Right** (Writ of), a writ which lay for a man who had the right of property against him who had the right of possession, and was in possession under such right. **Right of Possession**, that right which one has to possession, while the actual possession is in another, in which event he may enter in and turn out the actual occupant. **An** apparent right of possession may be defeated, but an actual right will stand the test. **Right of Property**, after the actual possession is lost, the abstract right which still remains. **Right of Search**, in a belligerent power, the right to examine and inspect the papers of a neutral vessel at sea. **Right of Way**, the right of the owner of one piece of real estate to pass over another's property at a certain place. **Right of Suffrage**, the right of voting. When people have once enjoyed the privilege of voting, they have claimed it as a right, basing the claim upon the fact that it has been given by the government. **Right to Begin**, the burden of proof lying upon the party who asserts the affirmative of an issue, he has a right to begin and to reply. **Right to Assemble**, and **to Petition**, see Personal Liberty.

RIOT.—A disturbance of the peace by three or more persons conspiring together to raise a tumult, or to commit a wrong, in a violent manner. **Riparian Proprietors**, owners of land bounding upon a water-course. They also own the bed to the central line of the stream. **Road**, see Highway.

ROBBER.—One who takes the property of another, by force, by open violence, or by secret theft. **Robbery**, the taking of personal property from another, usually in his presence and against his will, by violence, or by putting him in fear of immediate injury to his person.

ROLL.—A public writing, register, or schedule, containing legal proceedings; the records of a court or office; a list or register of the names of persons, as of a school, or any organized body of persons. **Roster**, a list of persons who are in their turn required to perform certain duties.

ROTATION IN OFFICE.—The limitation of the term of office of the members of the government, as an effective way of preventing the exercise of unconstitutional authority. There being a strong temptation to so use an office for selfish ends, the principle of rotation in office is one of the most mischievous that can guide an intelligent people.



ROYAL FISH.—The whale or sturgeon. **Rubric**, the inscription or title of any law. **Rule of Court**, an order made by a court having jurisdiction. **The** practice rules of the different courts, and which the judges are empowered to frame and enforce, as occasion may require, are called **rules of court. Rule of Law**, a general principle of law, so recognized by authorities, and which aids in deciding doubtful cases. **Rule of Practice**, an order made by the court for the purpose of regulating the practice of the members of the bar and others. **Ruta**, things taken from the land; as, sand, coal, chalk, stone, etc.

SACRILEGE.—The act of stealing from churches. **Safe-conduct**, a pass or warrant of security given to the captain of a neutral ship, to enable him to proceed on a particular voyage with safety; a passport, or that which gives safe passage. **Safeguard**, a protection to one who is a stranger, who fears violence from some one, for seeking his right by course of law.

SALE.—An agreement between two parties for the transfer of property from one to the other, for a price paid, or to be paid. **A conditional** sale is one dependent upon something unknown or to be determined. **The** incidents of a sale are: (1) DELIVERY, which is not essential to a sale, as between the parties, but it is as to third parties; (See Delivery); (2) SELLER'S LIEN, which gives the buyer a right to take the property when he pays for it, but not until then; (See Lien. (3) RIGHT OF STOPPAGE, which gives the seller the right to retake his goods sold on credit, and hold them until paid for, when he hears of the buyer's failure, and the goods have not yet been delivered by the carrier; (4) WARRANTY OF OWNERSHIP, giving the buyer the right to be reimbursed by the seller, if the goods are proven to belong to another party than the seller; (5) WARRANTY OF QUALITY, which gives the buyer the right to return the goods to the seller, if on the sale, he warrants that the goods are of a certain quality, or are suited to a certain purpose, and they turn out differently. **The requisites** of a sale are: **I.** IT MUST BE A BINDING CONTRACT; to which the following are necessary: (1) If the price is under a certain amount, the first six requisites of a binding contract are applicable; (See Contract); (2) If the price is over that amount; **A.** The first six requisites of a binding contract, and **B.** The seventh requisite, viz., either (a) A writing; (b) Delivery and acceptance of part, or (c) Part-payment; **II.** THE PROPERTY MUST EXIST; **III.** THE PROPERTY MUST BE OWNED BY THE SELLER, except in the case of (1) Money, and (2) Negotiable securities payable to bearer; **IV.** Particular property must be contemplated; **V.** THE CONSIDERATION MUST BE MONEY. **The requisites** of an agreement to sell are: **I.** IT MUST BE A BINDING CONTRACT, to which the following are necessary: (1) If the price is under a certain amount, the first six requisites of a binding contract; (2) If over that amount; **A.** The first six requisites, and **B.** The seventh, viz., either (a) A writing; (b) Delivery and acceptance of part, or (c) Part-payment; **II.** THE CONSIDERATION MUST BE MONEY.

SALES.—A term used extensively to indicate the volume of business transacted for a given period, or to indicate relatively the general business of a commercial house. **Sales Book**, a book designed to contain only the sales of merchandise. The total footing is posted to the credit of merchandise account.

FORM OF SALES BOOK.

JANUARY 1, 19...

L.F.						
3	L.T. Mason, Utica, N.Y.					
	5 Grindstones,	2.50	12	50		
	10 8 Drills,	7.25	72	50	85	00
3						
4	S.P. Moore, Xenia, O.					
	7 doz. Carpet Stretch's,	3.00	21	00		
	10 ,, C.S. Axes,	15.00	150	00		
	3 ,, C.S. Augers,	7.25	21	75	192	75
5						
7	J.L. Lewis, Reading, Pa.					
	5 Grindstones,	2.50	12	50		
	5 8 Drills,	7.25	36	25		
	10 doz. C.S. Axes,	15.00	150	00	198	75
	Forward,				476	50

SALES LEDGER.—A book designed to contain accounts with parties who have made purchases on account. It may be kept in any form, but an ordinary ledger is the most convenient form. **Salesman**, one who exhibits goods to customers, takes orders, etc.

FORM OF SALESMAN'S SUMMARY SHEET.

Clerk's No. 27. Dep't Letter, H.

Date, ...Jan. 10, 19....

Sales No.	Amount	Sales No.	Amount	Sales No.	Amount
18	24 00				
20	18 50				
17	25 00				
22	30 00				
19	20 50				
	118 00				

FORM OF SALES TICKET.

Clerk's No. 17. Letter, M.

Name, ...Mrs. Asa Golding...

Address, ...199...Golden Gate Ave...

How Delivered, ...Del. Wagon...

Date, ...Feb. 14, 19....:

Articles			Amount	
10	yds. Black Lace,	60¢,	6	00
2	doz. Jet Buttons,	90¢,	1	80
13	yds. Gross Grain,	85¢,	11	05
	19		18	85
	Cash rec'd,		20	00
	Examined by ...Hayes..			

SALVAGE.—The compensation allowed to those who voluntarily save property abandoned, or in great peril at sea; the property saved after a disaster. **The** amount of salvage varies according to the difficulty, sometimes amounting to one-half of the value of the vessel and cargo saved. **All** who take part in the saving have a share of the salvage, viz., the master, crew, and owners of the saving vessel. **Salvage Loss**, a loss which it is presumed would, were it not for certain services rendered and exertions made, have become a total loss; a mode of settling a loss. **Salvor**, one who saves property, or rescues it from the perils of the sea, or other waters.

SAMPLE.—A small quantity or portion taken from the bulk of any kind of merchandise to show the quality of the whole. A collection of samples or average sample is called a **muster.**

SANITARY.—Pertaining to measures for preserving health. **Sanitarium**, a hospital or retreat for convalescents. **Sanctuary**, a place where the process of the law cannot be executed. No place, however, affords protection from arrest in criminal cases.

SATISFACTION.—A record entered, by which a party, in whose favor a judgment has been rendered, declares himself satisfied and paid. **Satisfaction Piece**, an instrument in writing, in which it is acknowledged and declared that satisfaction is had between plaintiff and defendant.

SAVE A LITTLE.—Prudence and discretion require that every one who is obliged to work for his living, should make a point to lay up a little money for that "rainy day" which all are liable to encounter when least expected. The best way to do this is to open an account with a savings bank. Accumulated money is always safe; it is always ready for use when needed. Scrape together five dollars, make your deposit, receive your deposit book, and then resolve to deposit a given sum, small though it be, once a month, or once a week, according to circumstances. Nobody knows without trying it, how easy a thing it is to save money when an

BUSINESS TERMS.

account with a bank has been opened. With such an account one feels a desire to enlarge his deposit. It gives him lessons in frugality and economy, weans him from habits of extravagance, and is an excellent guard against intemperance, dissipation and vice.

SCALES.—A weighing apparatus, in which the body to be weighed is suspended from the shorter arm of a lever, which turns on a fulcrum, and a counterpoise is caused to slide upon the longer arm to produce equilibrium, its place upon this arm, which is graduated, indicating the weight. The scales used at the United States Assay Office are so delicate that a hair turns the balance. You can ascertain by them the difference in the weight of two eye-lashes. They are made of aluminium, and might be compared to a snow-flake.

SCHEDULE.—A sheet of paper or parchment containing a written or printed list, inventory, or table, and sometimes attached to deeds, etc. **School Funds**, sums of money or other property, the income from which is set apart for the support of public schools. In addition to about thirty millions of dollars distributed among the States in 1836, Congress has passed acts by which a certain proportion of the land in every township is reserved for the support of schools therein. By these acts, in some of the States 1/36, in others 1/16 of the whole State has been thus appropriated. **School Officers**, officers to whom is entrusted the supervision of the public schools. The official titles may differ to a limited extent in the different States, but in general will accord with those given in the following

SCHOOL SYSTEM.

Officers.—Superintendent Public Instruction, State Board of Education, County Superintendents, City and Town Trustees (or Directors), Township Trustees.

General Institutions.—Ungraded Schools, District or Township Graded Schools, Town and City Schools.

University System.—State University, State Normal School, Industrial School.

Charitable Institutions.—School for the Blind, School for Deaf Mutes, Orphans' Home.

Reformatory Institutions.—Boys' Reformatory, Girls' Reformatory.

Special Institutions.—State Teachers' Association, County and Township Institutes.

SCOT AND LOT.—A customary contribution placed upon all subjects according to their ability. **Scrip**, dividends issued by a stock company payable in stock. Scrip dividends are simply an increase of the capital of the company, as the stock issued to meet them is added to the capital, and in its turn is entitled to future dividends. **Script**, an original instrument, where there are part and counterpart.

SCRIVENER.—One whose business is to place money at interest; one who draws up contracts and other instruments. **Scroll**, a mark used to supply the place of a seal.

SEA.—The ocean; a wave or large quantity of sea-water, as to ship a sea; the character of the surging and swelling of the waves, as a heavy sea. **Sea-Breeze**, a wind blowing from the sea. **Seafaring**, following the occupation of a seaman. **Sea Laws**, laws relating to and governing maritime affairs. **Sea-Level**, the surface of the open sea taken as the point from which to estimate or measure the perpendicular heights or depression of other surfaces, as of hills and mountains. **Sea-Shore**, that space of land lying between high and low-water mark. **Sea-Sickness**, the nausea, accompanied by retching and vomiting experienced on a vessel at sea, and caused by the constant rocking of the vessel by the waves. **Sea-Wall**, a strong wall built to resist the encroachments of the sea. **Sea-Weed**, the plants found growing in the sea, and which, when washed ashore belongs to the owner of the land adjoining. **Seaworthy**, fit for a voyage.

SEAL.—An impression upon any yielding substance. A seal is a necessary part of a deed in most States. It may be a piece of paper wafered or gummed to the instrument, and in many States it is sufficient if a circle or scrawl is made with the pen opposite the signer's name. Any one may attach the seal, provided it is done before the deed is delivered. When a seal is attached to an instrument, it is called a specialty. **Sealed Bids**, bids put in writing, and placed in an envelope and sealed. **Sealed Verdict**, a written verdict, inclosed in an envelope and sealed, in the absence of the judge, in order to relieve the jurors, and allow them to separate for the time. **Sealed Writings** or **Instruments**, those having seals attached, as bonds, deeds, and certain contracts. All contracts not under seal are called parole. A seal is of twofold effect: (1) It assumes a consideration; hence, unnecessary to prove one; (2) By ordinary statutes of limitation, it runs twenty years, instead of six, before the right of action ceases.

FORM OF SEALED NOTE.

$5000. COLUMBUS, O., NOV. 1, 18...

For value received, I promise to pay...W. F. ALBRECHT & Co...or order, ~~Five Thousand~~ Dollars, in three years from the date hereof, with interest payable semi-annually, without defalcation or discount. And in case of my default in the payment of the interest or principal aforesaid with punctuality, I hereby empower any attorney-at-law, to be appointed by said ...W. F. ALBRECHT & Co..., or their assigns, to appear in any court which said...W. F. ALBRECHT & Co..., or their assigns, may select, and commence and prosecute a suit against me on said note, to confess judgment for all and every part of the interest or principal on said note, in the payment of which I may be delinquent.

Witness my hand and seal the day and year above written.

...C. H. SWELLY... [Seal].

Attest:..N. R. BISHOP...

SEARCH.—A seeking or looking, for the purpose of discovering evidence in relation to the matter sought for. **Searcher**, a customs officer, whose duty is to examine all ships outward bound, to ascertain if they have any prohibited or uncustomed goods on board; also one who examines records. **Search of Title**, examining the successive deeds and records relating to real estate. **Search Warrant**, a written authority addressed to an officer, requiring him to enter certain places and search for stolen property, etc.

SECOND DELIVERANCE.—A second writ of replevin. **Second Conveyance**, one which presupposes some other conveyance precedent, and only serves to enlarge, alter, confirm, restrain, restore, or to transfer the interest granted by such original conveyance. **Secondarily**, a term applied to the liability of an endorser of a note, or the drawer of a bill, signifying that he is only conditionally liable, the maker of the bill, or acceptor being primarily, or first liable. **Secondary Evidence**, that evidence which is best, in the absence of primary evidence. **Second-hand**, that which has been used or worn; not original or primary. **Secondary Use**, that use which is limited to take effect in derogation of a preceding estate.

SECRETARY.—One entrusted with the management of business; one who writes for another. **Secretary of State**, the chief officer at the head of the Department of State in the National Government. He has charge of all the business of the Nation with foreign nations. **Secretary of the Treasury**, the head of the Department of the Treasury. He has charge of the finances of the Nation. The vast amount of

business in this department requires a great number of assistants. All the custom houses, mints, and subtreasuries form part of it. **Secretary of War**, the head of the Department of War. He has charge of the procuring of supplies, equipments, and other matters relating to the army. The duties are most important in time of war. **Secretary of the Navy**, the head of the Department of the Navy. He has charge of the navy, the procuring of supplies and equipments of vessels of war, etc. **Secretary of the Interior**, the head of the Department of the Interior. He has charge of the taking of the census every ten years, the management and sale of the public lands, the management of the Indians, the payment of pensions, and the granting of patents. **Secretary of Agriculture**, the head of the Department of Agriculture. He has charge of the agricultural interests of the Nation, and of the signal service. The other two Departments in the President's Cabinet are: **Attorney General**, who attends to all suits in the United States courts in which the Nation is interested; and **Postmaster General**, who has charge of all matters connected with the Post-Office Department.

SECRET PARTNER.—One who is really a partner, though not advertised as such to outsiders. He is responsible for the firm's debts the same as any other partner. **Sectores**, bidders at an auction.

SECURITY.—A right which a creditor has to rely upon, besides the mere promise of the debtor; such as guaranty, lien, pledge, and mortgage. **Security for Costs**, in case a plaintiff resides out of the jurisdiction of the court, or is trustee, he is sometimes required to give security for costs. **Security of Life, Reputation, etc.**, the compelling by the government, of corporations to take precautions for the safety of their own employees, of the public whom they serve, and protection from all against false and malicious utterances; also requirement from its officials to take precautions to prevent the spread of contagious diseases.

FORM OF SECURITY FOR RENT.

I,...JOHN DOE,... do hereby agree to be responsible to...JUNIUS SOLO..., or his assigns, for the true and faithful performance of the above named contract on the part of...RICHARD ROSTON...

In witness whereof, I have hereunto set my hand and seal on this ...10TH... day of...June,..19....

Signed, sealed, and delivered in presence of ...HIRAM HARPER... —JOHN DOE...[L.S.]

SEDITION.—Any revolt against the government, not amounting to a capital crime, nor to treason. **Sedition**, the act or crime of persuading a female to surrender her chastity. **Seignior**, the lord of a fee or manor. **Seisin**, in common law, a term signifying possession. Seisin in Fact is the actual taking of possession. Seisin in Law is where lands descend, and one has not actually entered upon them.

SEIZURE.—The taking possession of property suspected to have been stolen, or property subject to duty; the act of taking possession of the property of a judgment debtor, by a sheriff or other officer authorized thereto. **Selectmen**, the name of the city council in some of the New England States.

SELL.—To transfer ownership for an equivalent. **Seller**, a vender, or one who disposes of a thing in consideration of money. **Seller's Option**, a stock exchange term, signifying a sale which gives to the seller the option of delivering the article sold within a certain time, the buyer paying interest up to the delivery. **Selling Short**, a stock exchange term, signifying the selling for future delivery that which one does not possess, in hopes that prices will fall. **Selling Out**, the disposing of one's entire stock, usually to close the business.

SELF DEFENSE.—The act of defending one's own reputation, person, or property. A man is justified in committing a homicide, if necessary, in defending himself from personal injury.

SENATE.—The upper House of Congress. The causes which make the Senate a more select body than the House of Representatives are: (1) It has fewer members; (2) They are elected by the State legislatures instead of by the people; (3) The term of office is longer; (4) The qualifications are higher. In the Senate the States are equal in power, each having two members. The term of office for senators is six years; one-third of the whole number being elected every two years, designedly to avoid too abrupt alteration in the body. A senator must be at least 30 years of age, must have been nine years a citizen of the United States, and an inhabitant of the State for which he shall be chosen.

SENTENCE.—The judgment pronounced on a criminal by a judge; the decree or judgment of a court.

SEPARATE ESTATE.—An estate which belongs to one only of several; as, the separate estate of a married woman. **Separate Maintenance**, a certain sum or allowance, provided by the husband, for the wife's separate support and maintenance. **Separation**, the act of living apart by a husband and wife, by mutual consent. **Sequestration**, the act of taking possession of a benefice by legal process, in order to satisfy the claims of creditors; the setting aside of a thing in controversy, from the possession of both parties that contend for it, to be delivered to the one adjudged entitled to it. —— It may be either voluntary or involuntary.

SERF.—One bound to labor on a certain estate, for the benefit of his lord. **Sergeant-at-arms**, a minor officer in legislatures, to arrest members and other persons guilty of disorderly conduct, to compel the attendance of absent members, and to do other business of a like nature. **Sergeants-at-Law**, in the common law, the highest degree conferred upon advocates.

SERVANT.—A person employed by another for labor, and to be at his command. (See Employer). **Service**, labor, physical or mental, performed in course of duty, or for the benefit of another; the execution of a writ or process; a servitude. **Servient**, a tenement or estate in respect of which a service is owing another. **Servitude**, the condition of a servant or slave; a right which subjects a land to a service for the use of other land, belonging to another person.

SESSION.—The time during which a court or other assembly sits for the transaction of business. **Set Aside**, to make void or annul. **Set Off**, one demand placed against another. (See Off Set). **Settlement**, liquidation or payment; adjustment, as of differences or a claim; a disposition of property for the benefit of some person or persons, usually made on the prospect of marriage; a residence, or settled place of abode. **Severalty**, see Estate in Severalty.

SEVERANCE.—The act of severing two or more that are joined in one writ; the putting in separate answers or pleas by two or more disjointly; the destruction of the unity of interest in a joint estate.

SHAM PLEA.—A false plea, or one entered for the mere purpose of delay. **Share**, the part allotted or belonging to one, of any property or interest owned by a number. **Shareholder**, the owner of one or more shares of stock in a corporation.

SHELLEY'S CASE, Rule in.—"When the ancestor, by any gift or conveyance, taketh an estate of freehold, and in the same gift or conveyance an estate is limited, either mediately or immediately, to his heirs in fee or in tail, the heirs are words of limitation of the estate, and not words of purchase."

SHERIFF.—A chief officer in every county, having the administrative power of the State for his county. It is his duty to execute all warrants, writs, and other process directed to him by the courts; to apprehend persons charged with crime; and to take charge of the jail, and of the prisoners therein. It is his duty, also, to preserve the public peace, and he may cause all persons who break the peace to give bonds, with sureties, for keeping the peace, and for appearing at the next term of court, and to commit them to jail if they refuse to give such bonds. He is assisted by one or more deputies. **Sheriff's Jury**, a jury summoned by a sheriff to hold an inquest. **Shifting Use**, the same as Secondary Use (q.v.).

SHIP.—Any large sea-going vessel; especially a square-rigged, three-masted vessel. **Ship Broker**, one who acts for others in the buying, selling, and freighting of vessels. **Shipment**, the act of loading a vessel for a voyage; a bill of goods shipped. **Shipped**, delivered to a railroad, vessel, canal boat, or any common carrier for transportation. **Shipping**, vessels of navigation in general; the collective body of ships in one place. **Ship's Husband**, an agent who looks after the repairs, equipment, and other concerns of a ship. **Ship's Papers**, documents or papers with which a vessel is required by law to be provided, such as the register, passport, bills of lading, invoice, logbook, etc. **Ship-stores**, food, drink, and cooking utensils on board a vessel for use during a voyage. Sometimes rigging, extra spars, and other necessaries are included. **Shipping Articles**, articles of agreement between the master or captain of a vessel and the seamen on board, in respect to the amount of wages, length of time for which they are shipped, etc. **Shipment Account**, in book-keeping, an account kept with shipments. The title of the account usually combines Shipment and the name of the person to whom sent, the place to which sent, or both, thus: Shipment to H. Harding, or Shipment to Chicago. Shipments are Dr. for the invoice price of property shipped, including shipping charges (if any) paid by the consignor; and Cr., on receiving an account sales from the consignee, for their net proceeds, when for loss or gain they properly close into the Loss and Gain Account.

FORM OF SHIPPING RECEIPT.

Peru, Oct. 1, 19... Peru, Oct. 1, 19...

Shipped per ..... Received from... S. T. Coan..., in good order, on board the "Shakespeare," bound for Boston, the packages marked and entered as below:

Bound for .....

Packages .....

Marks .....

Marks.

L. S. 5 Sacks Clover Seed.

C. D. 10 bbls. O. Flour.

L. S. Morton, Ag't.

FORM OF SHIPMENT BOOK.

Date.	L.F.	Name and Extensions.	Extensions.		Total	
Oct. 1	27	Cox & Kline, Arcadia.				
		50 boxes Oranges, 2.00	100	00		
		20 " Lemons, 2.50	50	00	150	00
		Wher. Des. Fr't prepaid.				
Oct. 7	36	More & Co., Tipton.				
		50 bbls. Apples, 2.50	125	00		
		10 Crates Onions 1.25	12	50	137	50
		L. E. W. R. R.				
	116	Shipments			287	50
	102	To Mdse.				

FORM OF SHIPMENT OR CONSIGNMENT LEDGER.

NORTON & CO., Akron.

19...					19...				
Oct.	1	Lot # 1.			Oct.	5	2 cr.	1.75	3 50
		10 cr. Onions				6	3 "	1.75	5 25
		Fr't and Dra.		2 50		6	4 "	1.75	7 00
	6	Corn. 5%		86		6	1 "		1 60
		Cash Proceeds		13 99					
				17 35			10% total		17 35

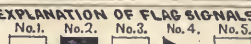
SHIRE.—A district or division of country. **Shoring up**, the act of strengthening the building adjoining where an excavation is being made, by running large pieces of timber known as "needles" through the basement to support the floor and wall of the building.

SHORT.—Not having ready money. (See Selling Short). **Short Exchange**, bills of exchange made payable at sight, or at Short Sight, i.e., in a little time, three days or so, after being presented to the payer. **Shrinkage**, a reduction in the bulk of measurement. **Side-bar Rules**, formerly rules which were moved for by attorneys on the side-bar of the court, but now can be had of the clerk of the rules upon a præcipe.

SIGHT.—Usually the time of presenting a bill to the drawee. **Sight Draft**, a draft made payable at sight, or on presentation to the drawee. For form see Draft.

SIGNAL SERVICE.—A bureau of the government, connected with the Department of Agriculture, organized to collect from the whole country simultaneous reports of local meteorological conditions, upon comparison of which at the central office in Washington, predictions concerning the weather are telegraphed to various sections of the country where they are made known by signals publicly displayed. The places where the observations are made, and the signals displayed, are called signal stations.

EXPLANATION OF FLAG SIGNALS.

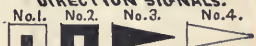


No. **1**, white flag, six feet square, indicates clear or fair weather. No. **2**, blue flag, six feet square, indicates rain or snow. No. **3**, white and blue flag, six feet square, indicates that local rains or showers will occur, and the rain will not be general. No. **4**, black triangular flag, four feet at base, and six feet in length, always refers to temperature; when placed above Nos. 1, 2, or 3, it indicates warmer weather; when placed below Nos. 1, 2, or 3, it indicates colder weather; when not displayed, the indications are that the temperature will remain stationary, or that the change will not be more than 4° from that of the same hour of the preceding day from March to October, and not more than 6° for the remaining months of the year. No. **5**, white flag, six feet square, having black square in center, indicates the approach of a sudden and decided fall in temperature. It is not to be displayed unless it is expected that the fall will be to 42° or lower, and is usually ordered at least 24 hours in advance of the expected cold wave. When No. 5 is displayed, No. 4 is always omitted. When displayed on poles, the signals read downward; if displayed from horizontal supports, a small streamer should indicate the point from which to read the signals.

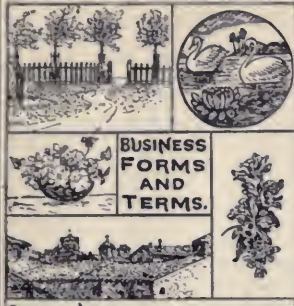
COMBINATIONS.

No. 1, with No. 4 above = fair, warmer.
No. 1, with No. 4 below = fair, colder.
No. 2, with 4 above = rain or snow, warmer.
No. 2, with 4 below = rain or snow, colder.
No. 3, with 4 above = local rains, warmer.
No. 3, with 4 below = local rains, colder.
No. 1, with 5 above = cold wave, fair.
No. 2, with 5 above = cold wave, wet.

STORM, CAUTIONARY AND WIND-DIRECTION SIGNALS.



No. **1**, red flag, black center. No. **2**, yellow flag, with white center. No. **3**, red pennant. No. **4**, white pennant. The square flags indicate the character of the storm, whether severe or moderate. No. **2** indicates that the winds will not be so severe. No. **1** indicates marked violence in the expected storm. No. 3 displayed with No. 1 or 2, indicates easterly wind (from northeast to south). No. **4** displayed with No. 1 or 2, westerly wind (from southwest to north). The pennant above the flag, indicates that the wind is to be expected from the northerly quadrant; below, from the southerly quadrant. At night a red light indicates easterly winds, and a white light above a red, westerly winds. The "Information signal" (a yellow pennant) indicates that the local observer has received information of interest to vessels about to sail to certain points.



SIGNATURE.—One's name written by himself. **Sign Manual**, the signature of one's name in his own handwriting; **the** royal signature. **Signing Judgment**, act of entering the judgment, which either the plaintiff or defendant has obtained in an action.

SILENT PARTNER.—One who invests his capital in a business, but whose name does not appear in the firm. His liability is limited to the extent of his contribution, except when he fails to make the proper publication of his connection with the concern, in which case his liability is the same as that of a secret partner. **Simony**, an unlawful contract for presenting a clergyman to a benefice.

SIMPLE CONTRACT.—A contract, either verbal or written, but not under seal or of record. **Simple Interest**, interest on the principal only. **Simple Larceny**, plain larceny, without violence. **Sinecure**, an office having a salary attached, without the requirement of services; a rector without cure of souls.

SINK.—To lower in amount or value. **Sinking Concern**, a business establishment or firm continually losing money. **Sinking Fund**, a fund created for the payment of the interest, and gradually the principal, of a public debt, or that of a corporation. **Skeleton Ledger**, a trial form of the ledger, showing only the debits and credits.

FORM OF SKELETON LEDGER.

Dr. Stock.	Cr.	Dr. Mdse.	Cr.
8001.40	6057.40	35.	934.93
	1943.	899. 93	
	8001.40	934.93	934.93
	8001.40	934.93	

SKILL.—Great readiness and ability in the practical application of any art, science, or handicraft. Any one by engaging in any kind of business represents that he and his clerks or workmen have the degree of skill ordinarily required in that business. He does not therefore agree to use all possible skill, but only such as is ordinarily possessed.

SLANDER.—Words spoken with the intent to injure the character of another. It is actionable the same as libel (q.v.). **Slander of Title**, a statement of something tending to injure or cut down the extent of title to some estate vested in another. **Slavery**, the state of being absolutely the property of another, usually for life. **Slave Trade**, the traffic in slaves for profit. **Sleeping Partner**, one who invests his capital in a business, and shares the profits, but takes no part in the active management of it. **Slop Shop**, a shop where cheap ready-made clothing is sold.

SMART MONEY.—A sum of money given beyond the actual damages, in case of misconduct on the defendant's part, by way of example and punishment. **Smuggling**, the act of importing or exporting goods, without paying the duties imposed thereon. **Socage**, a tenure by any certain or determinate service. **Socer**, the father of one's wife.

SODOMITE.—One who has been guilty of sodomy. **Sodomy**, the crime of having unnatural intercourse with a male human being, or semble, a female person; or, with a brute. **Solar Day**, the interval of time between sunrise and sunset. **Solar Month**, a calendar month. **Sole**, single, not married. **Solicitor**, one who solicits, or asks with earnestness, for another; **an** officer in a court of chancery, who is retained by clients to defend and sue in their behalf; **an** attorney.

SOLVENCY.—The condition of a person who is able to pay all his debts in full. **Sough**, a drain or watercourse. **Sovereignty**, the union and exercise of all human power possessed in a state. **It** means the full right to govern its subjects without interference or direction from any other power, and the right to enter into relations with other states.

SPADONES.—Those who are unable to procreate. **Speaker**, a member of a legislative body, who is chosen to preside over their deliberations. **Speaking Demurrer**, one introducing new facts, which do not appear upon the face of the bill in equity.

SPECIAL.—Pertaining to a particular kind; opposed to general. **Special Assumpsit**, an action of assumpsit brought on an express promise or special contract. **Special bail**, one who undertakes to be answerable for the appearance of another. **Special Books**, in book-keeping, extra books employed for convenience in particular cases; as, books of original entry, and auxiliary to the Day Book or Journal. **Special Columns**, columns additional to those usually employed in keeping accounts, and introduced generally for saving time, space, or work. Special columns in journalizing saves work in posting, and accommodates ledger accounts in less space. In a journal for a retail business, a special column for mdse. cr. may be introduced to advantage, thus constituting a three-column journal. If expense items occur often, a special column for expense dr. may be added, making a four-column journal. By introducing additional debit and credit columns for cash, a six-column journal is provided. In a cash book, special columns may be introduced for merchandise, both debit and credit, thereby saving time and space in posting.—**Special Damages**, damages arising directly from the act or fault complained of. **Special Demurrer**, a pleading because of some defect in the form of the opposite party's pleading. **Special Jury**, a jury selected in a particular way by the parties. **Special Partner**, one in a limited partnership whose property cannot be taken to pay the firm's debts, beyond the money he has contributed to the firm. **Special Plea in Bar**, a plea which advances new matter. **Special Pleading**, the allegation of new matter, as distinguished from a direct denial of matter previously alleged on the other side; also the science of pleading. **Special Property**, limited or qualified property. **Specialty**, a writing sealed and delivered under some agreement. **Special Verdict**, a verdict by which the facts of the case are put on the record, and the law is submitted to the judges.

SPECIE.—Metallic money, as gold, silver, etc., coined by authority, and used as a circulating medium of commerce. **Specification**, a written statement containing a minute description or enumeration of particulars; **the** charge preferred against a person accused of a military offense. **Specific Performance**, an actual performance of a contract, by the party bound to perform it.

SPECULATE.—To purchase with the expectation of a contingent advance in value, and a subsequent sale at a profit. **Speculation**, the act of buying goods, lands, stocks, etc., in expectation of an advance in price, as distinguished from a regular trade in which the profit expected is the difference between the wholesale and retail price. **Speculative Accounts**, in book-keeping, accounts that indicate the source of gain or loss; as, merchan-

dise, real estate, interest, expense, etc. **Speculator**, one who buys real estate, stocks, or goods, expecting to hold them until they advance in price; an irregular dealer.

SPINSTER.—A term applied to a maiden, or a woman who was never married. **Sponsion**, a solemn act or engagement on behalf of another; an act on behalf of the State, by an agent not authorized, or one who exceeds his authority. **Sponsor**, one who undertakes to answer for another; a surety. **Springing Use**, a vested or contingent future use, limited to arise without any preceding limitations.

SPULZIE.—The act of taking away movables without the owner's consent, or that of the law. **Spy**, one who secretly watches the conduct, condition, actions, etc., of another, or of an enemy, in order to report them to another party. Spies may be shot in time of war, the same as deserters. **Squatter**, one who settles on the land of another without legal authority.

STAMP TAX.—Charge for stamps required by law to be placed on certain legal documents and various manufactured articles. **Standard**, that which is established by authority or custom, as a rule or measure of quantity; as, a pound, gallon, or weight; the proportion of weight of fine metal and alloy established by authority for coinage. **Stannary Courts**, English record courts, for the administration of justice among the tinners of some countries. **Standard of Monetary Value**, the standard of monetary value is either gold or silver in all the civilized countries. The following is a list of the most important countries in the world, divided into three groups, those using (1) a gold standard, (2) a silver standard, (3) a double or variable standard. The term "variable" is preferable to that of "double," inasmuch as the double standard never exists at one and the same time, gold or silver becoming alternately the standard, as the state of the exchange makes the one or the other more desirable as the practical medium of exchange.

GOLD STANDARD.	SILVER STANDARD.	DOUBLE OR VARIABLE.
Australia.	Austria.	Argentine Re.
Brazil.	Bolivia.	Belgium.
Brit. Col. in Af.	China.	Chili.
Brit. N. Amer.	Cochin-China.	Cuba.
Denmark.	Colombia.	France.
Egypt.	Ecuador.	Greece.
Germany.	East India Is.	Hayti.
Gr. Brit. & Ire.	Hungary.	Italy.
Liberia.	India.	Netherlands.
New Zealand.	Japan.	Roumania.
Norway.	Mexico.	Spain.
Portugal.	Peru.	Switzerland.
Sweden.	Russia.	Venezuela.
Turkey.	Tripoli.	United States.

STATE.—A community of persons living within certain limits of territory, under a permanent organization, which aims to secure the prevalence of justice, and otherwise promote the common weal, by self-imposed laws. The sovereignty of a state consists in the absolute right to control its own members, and in the absolute right to resist any interference in its affairs by any other state. The individual states of the American Union are not sovereign, but the nation itself is. The state is the whole body of people organized for the purpose of control; the government in that part of the whole body through which the control is exercised. There is no way for a private individual to sue a state, as it has been thought best to leave each state free to settle its obligations in its own way and in its own time. (See Court of Claims). **State Circuit Courts**, courts next in grade to the supreme court. From ten to thirty are established in every state, one for each district into which the state is divided. In a few states they correspond to the superior courts; in others they are called district courts. They have original jurisdiction, in general, of all classes of cases, both civil and criminal, and are the courts in which the great body of trials are had. They also hear appeals from the lower courts. (See Court). **State Prisons**, prisons maintained by the state, in which criminals convicted of the higher crimes are confined. Convicts are forced to work while confined, thereby rendering the prison to a certain extent self-supporting. **State Law**, the laws of the individual states as distinguished from the laws passed by Congress. Whenever they conflict, the former must give way to the latter. **State Rights**, those rights peculiar to the individual states as opposed to those of the nation. Among the rights of the states are: (1) No new state may be formed within the jurisdiction of another state, nor any state be formed by the junction of two or more states or parts of states, without the consent of the legislatures of the states concerned, as well as of Congress; (2) The small states have equal power in the senate with the large ones, and this right is perpetuated by the constitution; (3) To prevent the inequality in the treatment of the states by the general government, it is provided, that no tax or duty may be laid on articles exported from any state; (4) No preference may be given by any regulation of commerce or revenue to the ports of one state over those of another; (5) Vessels engaged in commerce between the states, may not be made to pay the usual charges for entrance and departure to which vessels engaged in foreign trade or commerce are subject.

STATEMENT.—A list of resources and liabilities; a report of an agent's transactions sent to his principal; a synopsis of an account, or a brief enumeration of bills which have been purchased within a certain time. Some mercantile houses send statements at regular intervals, as monthly, to their customers who purchase on credit, that a comparison of account may be made, and, that if any error exists, it may be rectified.

FORMS OF STATEMENTS.

MONTHLY STATEMENT.

St. Louis, Oct. 31, 19...

Messrs. A. H. Bowls & Co.,

To C. D. Brown & Co. — Dr.

Oct.	4	To Mdse. as per Bill, @ 3 mos.,	$75	00
,,	17	,, ,, ,, ,, ,, 3 ,,	95	00
,,	23	,, ,, ,, ,, ,, 60 days,	80	00
			250	00

RESOURCES AND LIABILITIES.

STATEMENT, JAN. 31, 19...

Resources.				
Per. Accts. Rec., as per Ledger,	581	60		
Bill Rec., as per Bill Book,	717	15		
Cash, as per Cash Book,	957	25		
Mdse., as per Inventory,	1300	00		
Store and Fixtures,	1917	00		
Furniture,	300	00	5768	00
Liabilities.				
Per. Accts. Pay., as per Ledger,	717	15		
Bill Pay., as per Bill Book,	812	85	1520	00
Pres. Worth, Invested,	4310	00	4238	00
Withdrawals,	151	00		
Net Credit,			4219	00
Net Gain,			19	00

STATEMENT OF ACCOUNT.

Boston, March 25, 19...

Messrs. Cue & Jones,

In acct. with Small & Cox. — Dr.

May	10	Mdse., 2 mos.,	170	00	
June	10	,, 3 ,,	160	00	
July	10	,, 4 ,,	150	00	480 00
		Cr.			
May	20	Cash,	150	00	
July	10	,,	100	00	250 00
		Average due Sept. 17,			230 00

STATEMENT FOR OBTAINING CREDIT.

To Wells, Munk & Co.,
Cincinnati, O.

GENTLEMEN:—For the purpose of obtaining credit, we hereby submit the following statement, showing the total amount of resources and liabilities of whatever kind, and affirm that said statement represents the entire and complete condition of our business, and that the facts stated therein are true and correct as shown by our books and inventory.

Resources.		Liabilities.	
Mdse., Schedule	A, $9170.00	Bills Pay. Sched.	C, 810.00
Accts. Rec., "	B, 7100.00	Accts. Pay. "	H, 670.00
Bills Rec., "	G, 710.50	Total Liabil.,	1480.00
Furniture, "	D, 600.00		
Horses, "	E, 250.00	Pres. Worth,	16870.50
Wagons, "	F, 170.00		
Cash on hand,		150.00	
Total Resour.,		18350.50	18350.50

Dated, Roan, Ind.. Nov. 17, 18....

HEIGHT & CO.
Partners { A.M. HEIGHT. L.T. RUSH.

STATUS.—The condition of persons. **Statute**, an act of the legislature or supreme power of a state commanding or prohibiting a thing. **Statutes of Limitation**, see Limitation of Action. **Stay of Execution**, a period of time during which no execution can issue on a judgment. **Stay of Proceedings**, suspension of an action, either conditionally or absolutely. **Steelbow Goods**, implements of husbandry, cattle, corn, straw, etc., delivered by a landlord to a tenant, on condition that on the expiration of the lease, he will return the like number of goods of like quantity.

STELLIONATE.—The act of selling the same property to two different parties; any fraud which has no definite name. **Sterling**, the current money of Great Britain. The Pound Sterling is represented by a gold coin called a Sovereign coined at $4.86⅔. The Farthing is not coined; the Penny is copper; the Crown, Shilling, and Sixpence are silver; the Sovereign and Guinea are gold. **Stint**, that proportion of a man's cattle which he is allowed to keep upon the common.

STIPES.—Stock, or source of descent or title. **Stipulation**, an agreement or bargain; in admiralty, a recognizance in the nature of bail for the appearance of the defendant. **Stirpes**, root, stock, lineage, or stem.

STOCK.—Race, lineage, or family; capital in trade; the title of the proprietor of the business. Stock is also synonymous with Capital Stock. It is also used to denote the shares into which the capital stock is divided, as where one is said to own so much stock, meaning so many shares. **Stock Account**, an account employed to represent the person or company doing business. In opening the books for a business, the several kinds of property belonging to the business are each Dr., under its proper title, to Stock for the amount of the whole; and, if there be any debts to be paid, Stock is Dr. for the amount of them to the persons owed, or to bills payable, or to whatever represents the claim. The Stock Account is Cr. for the assets of the firm, and Dr. for its liabilities. **Stock Broker**, an agent who buys and sells stock for others on commission. **Stock Certificate**, a certificate entitling its owner to one or more shares in a stock company. **Stock Exchange**, an association or company of stockbrokers; the building where brokers and bankers meet to buy and sell stock, bonds, etc. **Stock Farmer**, a farmer who confines his attention chiefly to the raising of live-stock. **Stockholder**, one who holds shares in the capital stock of a joint-stock company. **Stock Insurance Company**, one in which the capital stock is owned by persons who compose the company, and who are called stockholders—the losses being paid from the premiums received, or if these are insufficient, from the capital stock. **Stock-in-trade**, the goods of a merchant, which are employed in his business. **Stock Jobber**, one who speculates in stocks. **Stock Market**, the state of demand for stocks. **Stock on Hand**, unsold merchandise. **Stocks**, shares in the capital stock of a joint-stock company. **Stock-taking**, an inventory of the quantity and cost-value of the goods on hand, and of fixtures and furniture, taken periodically by a merchant or tradesman. **Dead-stock**, goods for which a market cannot be found. **"Watered" Stock.**—At times the charter of a corporation forbids the declaring of a dividend exceeding a certain per cent of the par value of its stock. In this case the directors may find it desirable to "water" the stock, i.e., to issue additional shares. This increase in the number of shares reduces the percentage of dividend, yet the same profit in the aggregate is secured to the stockholders.

FORM OF STOCK CERTIFICATE.

No. 175. 50 Shares.

DRYTOWN MINING COMPANY.

DRYTOWN, CALIFORNIA.

SHARES $100 EACH. CAPITAL STOCK $500,000.

STAMP.

This certifies that...John W. Mahan...is entitled to...Fifty... Shares in the Capital Stock of the DRYTOWN MINING COMPANY, Transferable only on the Books of the Company, in person, or by Attorney, upon the surrender of this Certificate.

In witness whereof, the Seal of said Company has been hereunto affixed, this ...3rd...day of...Oct...19....

A.L. WARD, Treas't. M.T. SHIELL, Pres't.

STOLEN PROPERTY.—If one attempt to sell what he does not own, there is no sale; i.e., no one can claim a thing he cause he bought and paid for it, unless he bought it from the owner. The true owner of property can claim it at any time, and in whosever possession he may find it. There are two important exceptions to the foregoing rule, viz., money and negotiable securities payable to bearer, such as promissory notes, drafts, bills of exchange, checks, bonds, etc. Whoever obtains money, or negotiable securities payable to bearer (1) before they become due, and (2) gives something in consideration, and (3) has no reason to suspect that the one from whom he obtains them has not the full right to transfer them, obtains the same right to them that he would if the other party were the real owner. (See Loss of Property).

STOPPAGE IN TRANSITU.—The recalling and taking possession of a bill of goods sold on credit, while they are still on their way to the buyer, and before he has taken possession of them. (See Sale (3).)—**Stop Payment** (of a check), to notify the bank, before the check has been presented, not to pay it. **Stopped Payment**, an expression equivalent to failure; as, when a merchant fails, or ceases to pay his notes or liabilities.

STORAGE.—Amount paid for the privilege of storing goods in another's warehouse. The charges are a certain price per barrel, bale, box, etc. All goods stored, though for only a day, are subject to at least one month's storage. To compute storage, multiply the number of barrels, or other articles

BUSINESS TERMS.

first entered, by the number of days between the time of entrance and the time of first delivery, or second entrance. Then multiply each balance by the number of days it continues unchanged. The sum of all the products will equal the number of articles in store for one day. To find the number stored for one month, divide the sum of the products by 30.

FORM OF STORAGE RECEIPT.

PHILADELPHIA, JULY 3, 19....

Received on storage account at our Water Front warehouse, from ...Maxwell, Brown & Co.....Five Hundred barrels Shenandoah Valley Headlight Oil, "Crescent" brand. The same are to be returned to them on the payment of storage and the return of this receipt, endorsed by them. Storage and charges five cents per barrel a month. Insured by owners. ...WELLS & MORE...

STORE.—A place where goods are sold, or a warehouse. **Store Goods**, those bought at a store as distinguished from home-made goods. **Storehouse**, a depository for merchandise. **Storekeeper**, a retail dealer, generally one who keeps a miscellaneous assortment of goods; **an officer** who has charge of the United States bonded warehouse. **Stores**, a ship's supplies, or those of a family; as, various articles of provisions. **Stowage**, the arrangement of the goods in a warehouse; the arrangement of a ship's cargo, so as to prevent injury by friction or leakage.

STRADDLE.—In the stock exchange, a combination of the "put" and the "call." It gives the purchaser the right to get the difference whether the grain goes up or down. The man selling the straddle bets that, within the specified time, grain will not fluctuate, while the buyer bets that it will. **Stranding**, the voluntary or accidental running of a ship or other vessel on shore.

STRANGERS.—Legally, third parties; as, the persons bound by a fine are parties, privies, and strangers; **the** person who is not privy to an act or action; **one** born out of the United States. **Stratagem**, a plan or scheme for gaining some advantage, or of deceiving an enemy, especially in war. Stratagems and deceit are allowable in war, but not so far as to constitute a breach of faith. When an enemy surrenders or is captured, the right to kill is gone. **Stratocracy**, a military government.

STREAMS.—Streams of water running through one's land, confer the right on the owner to their use, so far as that use does not perceptibly diminish their volume, or change their course, or in any way prevent a similar use by other owners. An owner may build a dam upon his own land, but not so high as to cause the water to set back upon his neighbor's land, unless with the latter's permission. (See Riparian Proprietors). **Street**, see Highway.

STRIKING A JURY.—The selecting indiscriminately by a sheriff of forty-eight of the principal freeholders, and the striking off twenty-four of them, twelve by each side, and returning the remaining twenty-four for duty. **Stuprum**, criminal sexual intercourse, according to Roman law, between a man and an unmarried woman, maid, or widow, who before lived honestly.

SUB-AGENT.—The agent of an agent. **All** the rules of agency are applicable to the relation between the agent and the sub-agent, for as to each other they are principal and agent. (See Agency). **Subjection**, state of being under the power, control, or government of another. **Sub-Lease**, a lease from a tenant to another person of the whole or a part of the property, for a part of the time. **If** a tenant desire to transfer his right entirely to another party, he may do so, in which case he is said to assign his lease. In this case the sub-tenant is not responsible to the original landlord for the rent, the tenant being his only landlord. **If** a tenant transfer only a part of his right, he is said to sublet it, and the new tenant becomes a tenant of the original landlord, to whom he must pay the rent.

SUBMISSION.—The act of putting one's property or person under the control of another; **an** agreement by which parties consent to submit their differences for arbitration. **Subornation of Perjury**, see Perjury. **Subpœna**, a writ from a court commanding the attendance of witnesses, under heavy penalties if they do not. **Subrogation**, the act of substituting one person in the place of another, who is a creditor, and to whose rights in relation to the debt he succeeds.

SUBSCRIBING WITNESS.—A person who subscribes his name to an instrument, so that he can at a future day prove its execution.

FORM OF CERTIFICATE OF PROOF BY SUBSCRIBING WITNESS.

CITY AND COUNTY OF NEW YORK, ss:

On this...10th... day of...February... in the year 19..., before me personally came...M. S. Curtis..., a subscribing witness to the within instrument, with whom I am personally acquainted, who being by me duly sworn, said that he resided in the city of Brooklyn, in the State of New York; that he was acquainted with...A. H. and Minnie Wymer.., and knew them to be the persons described in, and who executed the said instrument; and that he saw them execute and deliver the same, and that they acknowledged to him (the said Curtis), that they executed and delivered the same, and that he (the said Curtis), thereupon subscribed his name as a witness thereto, at their request.

...D. P. THOMPSON...
NOTARY PUBLIC.

SUBSCRIPTION PAPER.—The heading should be as briefly and plainly written as is consistent with a clear expression of the purpose for which the money is subscribed.

FORM OF SUBSCRIPTION PAPER.

WASHINGTON, SEPT. 10, 19....

We, the undersigned, agree to pay the sums set opposite our respective names, for the purpose of defraying the expenses necessary to the appropriate celebration, in this city, of our National Independence, on the coming Fourth of July.

No.	Names.	$	No.	Names.	$
1	———	10.00	4	———	25.00
2.	———	15.00	5	———	1.00
3	———	6.00	6	———	8.00

SUBSIDY.—Money furnished for a particular purpose; assistance granted by one state to another by treaty for aid in war. **Substitute**, one put to occupy the place or position of another; **one** sent to the army in place of another, when drafted. **Substitution**, the act of placing one person in the place of another, that he may act for him. **Substitution of Attorney**, see Attorney. **Subtraction**, in law, the withdrawing or withholding of some right. **Sub-Tenant**, the tenant of a tenant. (See Sub-Lease).

SUCCESSION.—The act, right, or the power of succeeding to the inheritance of another. **Successor**, one who follows or succeeds to the position of another. **Sue**, to commence or continue legal proceedings against a party. **Suffrage**, the right or privilege of voting. (See Qualifications for Voting). **Suicide**, the act of deliberately taking one's own life, while in the possession and enjoyment of his mental faculties.

BUSINESS FORMS.

SUIT.—A prosecution; an action at law or in equity. **The** proceedings in an ordinary civil case are: (1) the summons, (2) the pleadings, or preparing the necessary papers, (3) the selection of a jury, (4) the trial, (5) the verdict, (6) the judgment, (7) the appeal, if the defeated party thinks justice has not been done. **The** proceedings in a criminal case are: (1) the indictment, (2) the arrest, and giving of bail, if bailable, (3) the examination, (4) the application for habeas corpus, if the prisoner thinks his arrest is unlawful, (5) the trial, (6) the charge to the jury, (7) the verdict, (8) the sentence or discharge. (The course of the trial is the same as in civil cases.)

SUMMARY.—An abstract or abridgment. **Summary Proceedings**, a method given by statute, by which a landlord regains possession of his premises, in case the tenant refuses, upon demand, to pay the rent, or when he wrongfully holds over. This method is less expensive than an action for ejectment. **Summing Up**, a review made in favor of one of the parties in a cause, before a court and jury, after the evidence has all been given. The judge usually sums up the evidence, in his charge.

SUMMONS.—A writ issued by a court at the instance of the plaintiff, and served upon the defendant, summoning him to appear in court. Generally this appearance is made by the defendant's attorney filing a notice in the clerk's office. **Sumptuary Laws**, those relating to the expenses of the people, and made to restrain excess in apparel, furniture, food, etc.

SUNDAY.—The first day of the week. It begins at 12 o'clock midnight on Saturday, and continues for 24 hours, except in some of the New England States, where it begins at sunset on Saturday, and continues 24 hours. In many of the States a contract made on Sunday, or an agreement to do anything on Sunday, except such as relate to works of necessity and mercy, is illegal and void.

SUPERCARGO.—An officer or other person engaged to proceed in a merchant ship, to have charge of the cargo, and sell it to the best advantage, and to superintend returning cargoes, and receive freight, as far as he may have authority. **Superficies**, buildings and other things that have been erected on the soil. **Superintendent of Public Instruction**, an officer whose duty is to examine into the condition of the public schools of the State, and report thereon to the legislature; to attend institutes and other meetings of teachers; to prepare blanks for, and to preserve statistics from, the local school officers; to supervise the school funds, and to distribute the school laws and other documents for the use of school officers.

SUPERIOR COURT.—A court of intermediate jurisdiction between the inferior courts and those of last resort. **Superstitious Use**, the use of land for a religious purpose, or by an ecclesiastical corporation. **Supervisor**, an officer appointed to superintend and care for the highways. (See Board of Supervisors, and County Commissioners.) **Supplemental Bill**, a supplement or addition to an original bill in equity, made to supply some defect. **Supplementary Proceedings**, those supplementary to execution under the Code, designed to furnish the judgment debtor with a cheap and summary mode of reaching such property of his debtor as could not be reached by execution at law, and to compel him to make discovery of his property.

SUPPORT.—The necessaries of life; an easement; the right of a man to rest the timbers of his house upon or in the adjoining wall belonging to another man. **Support of the Government**, this means not only pecuniary support which one is bound to contribute to meet the necessary expenses, but also moral support which comes from respect and obedience.

SUPREME.—Holding the highest position or place in government or power. **Supreme Court**, the highest court in the land, and was established by the Constitution itself. It consists of nine judges, and its jurisdiction is almost wholly appellate, having original jurisdiction in only a few cases. **Surcharge**, an overcharge; a disallowed item in an account which those who present it have personally to pay; putting more cattle on a common than the herbage will sustain.

SURETY.—A person who binds himself to pay a sum of money, or perform some act in case of the failure of another to do so. (See Guaranty, Notice of Protest, and Endorsement. **Suretyship**, the obligation of being bound to answer for the debt, default, or miscarriage of another.

SURNAMES.—In ancient times parents in naming their offspring, used names descriptive of some peculiarity already existing, or which it was hoped might become characteristic. Thus Eve means life-giving, Jacob, a supplanter, etc. These names were all personal names, having nothing in common with the names of others. In this respect they correspond to the English Christian names of modern times. As population increased it was discovered that something more was required to distinguish between two or more persons named alike or similarly. Hence, arose the practice of giving a supplementary name, or adding something to the proper name. These additions were called super- or sur-names, the first syllable being spelled with the letter u. These surnames were not transmissible from father to son, and were changeable at will. After a time, as population continued to increase, additions somewhat analogous to these over- or sur-names, came to be adopted, to fix more completely and accurately the identity of any particular person. To obviate to some extent the inconvenience of this system of nomenclature, which gave no clue to the family or connection, men began to add their father's name to their own. With this custom came in the now universal use of sir-names, spelled with the letter s. It is no longer a sur- or over-name, but a sir- or sire-name, that is, the name derived from the sire or father.

SURPLUSAGE.—That which is left over; in law, matter foreign and impertinent to the case. **Surrebutter**, answer of the plaintiff to the defendant's rebuttal. **Surrejoinder**, a plaintiff's reply to the defendant's rejoinder. **Surrender**, the act of resigning or yielding up a smaller estate to him who has a larger estate in the same lands, in remainder or reversion, by which the smaller estate is merged into the larger.

SURROGATE.—A judge having jurisdiction of the probate of wills. He is sometimes called surrogate, register, judge of probate, judge of the orphans's court. **Survey**, an examination into the condition of a ship or its cargo. **Surveyor**, an officer chosen to make the surveys of any lands in the county, when applied to for the purpose by parties interested, or by any of the courts; a person employed by marine insurance companies to inspect ships; an officer of a fire insurance company who examines and reports on applications for insurance on merchandise and buildings. **Survivor**, the longest liver of two or more persons.

SUSPEND.—To stop payment. **Suspense Account**, in book-keeping, an account containing balances of personal accounts considered to be doubtful. **To** keep such an account, place upon the credit side the separate amounts which appear upon the debit side of the doubtful accounts, debiting the same to Loss and Gain at once, thus permitting the doubtful accounts to remain upon the Ledger without the corresponding gain which such resource, if genuine, would imply. **Suspension**, the act of delaying or withholding for a time a man's rights; as, when the rents or other profits of land cease by unity of possession of land and rent, they are then said to be in suspense. **Suspension of Payment**, the act of a firm or trader declining to pay any one debt, upon finding that they are unable to meet all their liabilities; also, when a bank stops cashing its checks or notes.

SUTLER.—An authorized vendor of provisions, etc., to soldiers in camp or garrison. **Swindling Note**, a note so worded and formulated as to lead farmers or others to believe that they agree to pay only a small amount, as twenty or thirty dollars, when they have sold goods to a given amount. **By** tearing off the right-hand end of the note, what is apparently an agreement for a small amount, becomes a promissory note for a large sum. **When** the note is sold at a bank, it becomes the property of a third and innocent party, who can by law enforce its payment. (See Stolen Property).

SYNDICATE—A number of capitalists who unite together to dispose of a large loan, or to conduct some great financial enterprise. **Syngraph**, a writing, bond, or deed, under the hand and seal of all the parties.

TABELLION.—A notary public. **Tac free**, free from payment. **Tacit**, that which is understood or implied from the nature of the thing, or from the provision of the law. **Tacking**, the act of uniting securities given at different times, all of which must be redeemed before an intermediate purchaser can interpose his claim. **Taking Stock**, see Stock-taking. **Tales**, a number of jurors added to a deficient panel. **If** the number is selected from the bystanders, the order of the judge is called *tales de circumstandibus*. **Tale Quale**, a term used in contracts where grain is sold off the coast, by a sample drawn at the port at which the ship has touched; and signifying that the cargo is held to be the same in quality as the sample, and that the buyer takes the risk of any damage the cargo may afterwards sustain.

TALLY.—Any method of marking or checking enumeration; a stick cut in two parts, on each of which is marked what is due between debtor and creditor. **Tally-man**, one who receives payment for goods in weekly installments. **Tare**, an allowance in the purchase of merchandise, for the weight of boxes, etc., in which it is packed; **an** allowance to purchasers for waste, of 4 lbs. on every 104 lbs. of weight after the above tare is deducted is called *trex*.

TARIFF.—A rate of duty fixed by law on imports and exports. **The** tariff taxes, commonly called duties, or customs, belong to the class of indirect taxes. They are made up of specific duties and ad valorem duties. (See Duties). **A** revenue tariff is one laid for the sole purpose of collecting revenue for the uses of government, and is made up of duties on goods not produced at home, as the tax on these will be paid without interfering in any way with the prices of domestic goods. (See Protective Tariff, also Free Trade).

TAVERN-KEEPER.—The keeper of an inn or inferior hotel. (See Hotel-keeper). **Tax**, a certain tribute imposed upon individuals for the support of the State or government. Taxes are either direct or indirect. **Direct** taxes include poll-taxes, and taxes on land, houses, and other real estate and personal property. **Indirect** taxes include duties, imposts, and excises. **Property** exempted from taxation includes the property of the United States, of the State, counties, townships, cities, literary and charitable institutions, schools and other educational institutions, religious societies, scientific and agricultural societies, public libraries, burial grounds, and a certain portion of the property of private individuals, as of widows, orphans, and some others. **An** apportionment of the whole amount of taxes raised, is made for the various State, county, and township purposes. **From** the complete tax list, containing a description of all the items of property taxed, the county treasurer collects the taxes according to law. **If** the tax is not paid within a specified time, the treasurer may take the property, or such portion of it as he deems necessary, and, after public notice, may sell it at public sale. **Taxation**, adjustment, or fixing the amount of costs; also the process of taxing or imposing a tax. **Tax Deed**, a document by which the title of the rightful owner is conveyed to the purchaser at a tax sale of property for the non-payment of taxes. **Tax Sale**, the sale of property for the non-payment of taxes. **Taxation of Costs**, the act of fixing or adjusting the amount of costs to which a party is entitled.

TELEPHONE.—A mechanism for the reproduction of sounds, particularly articulate speech, at a distance. **Telegram**, a dispatch or message received or transmitted by the electric telegraph. **Telegraph Company**, a company or corporation who own and control a line of telegraph wires. **In** the sending of a dispatch, the two parties concerned are the sender of the message and the company. **The** message must be sent as it is given, the operator not being permitted to correct evident mistakes, such as errors in grammar, nor add, nor omit anything, nor make any change in it. **A** message must be sent as soon as it can be, and in its proper order as received. An hour's unnecessary delay might make the company responsible. **A** telegraph company is a confidential messenger, and is responsible if it reveal the message to any one except the person addressed. **Telegraphic** correspondence being somewhat expensive, it is desirable to express in the very fewest words, clearly and unmistakably, our exact meaning. In writing a telegram, (1) write out in full what you desire to communicate, (2) read the message carefully, and strike out all the unnecessary words;

FORM OF SWINDLING NOTE.

DANVILLE, IND., MAY 1, 19....

One year after date, I promise to pay...H. Losey...or bearer—Ten—Dollars, when I sell by order—Five Hundred and Fifty—Dollars ($550) worth of Patent Wheat Screens, for value received, at ten per cent per annum, said—Ten—Dollars when due is payable at Danville, Ind.

Witness,...C.B. Gibson... ...H.S. WILLIAMS... Agent for H. Losey.

SYMBOLIC DELIVERY.—A delivery of property sold by delivering something else, as a symbol, token, or representative of it; as, of lands, a half-penny or a little of the earth and stones; of houses, a hasp and staple.

(3) copy it as corrected, sign your name, including street and number; (4) keep the first corrected draft for reference in case of trouble. (There is no charge for either the address of the sender, or that of the person addressed.

FORMS OF TELEGRAMS.

NOTICE OF SAFE ARRIVAL.

MR. A. C. MANSFIELD, Chicago, Oct. 7, 19...
716 Market St., Fresno, Cal.
Arrived safe. Like place. Will visit Fair tomorrow. Letter to-day.
10 HENRY.
Pd. 187 Dearborn St.

AN ORDER FOR BOOKS.

St. Louis, Feb. 1, 19...
N. R. Osgood,
161 Rose St., New York.
Send first express C.O.D. fifty Prentice-ic Worlds. J. R. Lytle, Agent.
9/Pd. 73 Treat Ave.

TO A LADY FRIEND.

Dayton, May 3, 19....
Miss Emily Barnet,
793 Broadway, New York.
Your father very ill. Is very low. Come on immediately.
Mamie Frank.

TELLER.—One who receives or counts; a bank officer who receives or pays out money. **Tenant**, one who holds or possesses lands or tenements by any kind of title, either in fee, for life, for years, or at will. **Tenants in Common**, tenants holding land and tenements by several and distinct titles and not by a joint title, but occupied in common, the only unity recognized between them being that of possession. (See Landlord and Tenant, Lease, and Sub-lease).

FORM OF TENANT'S NOTICE OF LEAVING.

St. Paul, March 27, 19....

DEAR SIR:

The premises I now occupy as your tenant, at No 717 Fourth street, I shall vacate on the fifteenth day of April, 19... You will please take notice accordingly.

B. A. S. Wilkinson.

To Abdel Young, Esq.

TENDER.—The act of offering money or anything in settlement, by a debtor or some one authorized; an offer in writing to supply certain articles, goods, ships, or anything that may be required, at prices and conditions specified in the tender. (See Legal Tender). **Tenement**, property occupied for a limited time on certain conditions; as, lands or houses.

TENENDUM.—A clause in a deed, limiting and creating the tenure of the land. **Tenet**, a term used in stating the tenure in an action for waste done during tenancy. **Ten-Forties**, one of the first loans of the government during the Civil War, 1861-5, socalled because of the privilege of the government to take it up in ten years, or to let it remain forty years, at its own option. Interest at 5%. **Tenor**, general drift or course of thought; also implying that a correct copy has been set out. **Tenuit**, a term used in stating the tenure in an action for the waste done after the expiration of the tenancy.

TENURE.—Manner of holding; especially the manner in which an estate in lands is held. **Term**, the limitation of an estate; the space of time in which a court or other organized body is open. **Term of Credit**, the time that is allowed for the payment of merchandise bought on account, and varies according to the kind of goods dealt in, and local usage. Some firms do only a cash business, while others allow a uniform term of credit for 30, 60, or 90 days. **Terms**, the conditions of a sale or agreement.

TERMOR.—One who holds lands or tenements for a term of years, or for life. **Terre-Tenant**, one who is in actual possession of the land. **Terrier**, a roll, catalogue, or survey of lands. **Territory**, a district of country not yet organized and admitted as a State. Until a Territory becomes a State, it is under the control of the United States Government, which grants it, to a certain extent, self-government, on the plan of the State governments. Each Territory has a right to send a delegate to Congress, who may take part in the debates of the House, but cannot vote.

TEST.—Any critical trial or examination; that with which anything is compared, for the purpose of ascertaining the truth of another thing. **Test Oath**, an oath relating to religious opinions. (See Oath). **Testament**, a written document, properly attested, in which a person declares his pleasure as to the disposal of his property after his death. (See Will). **Testate**, having made a will. **Testator**, one who makes a testament or will. **Testatrix**, a woman who makes a will or testament. **Teste**, the witnessing part of a document, as the date, etc. **Testify**, to give testimony or evidence according to law. **Testimony**, evidence given by a witness under oath. Standing, he raises his right hand, and swears to tell the truth, the whole truth, and nothing but the truth.

TEXTILE FABRICS.—All kinds of woven goods, especially piece goods. **Theft**, the general name for larceny (q.v.). **Theft bote**, the act of compounding a felony; the act of receiving a man's stolen goods from the thief, with the intent not to prosecute him. **Theocracy**, a government by the immediate direction or administration of God. **Things**, a term extended to all objects subject to dominion or property, except man. Things are real or personal.

THIRD PARTIES.—A term used in connection with transactions between two parties, to denote other persons whom the transactions may affect at the time or afterwards. **Thread**, the central line of a river or of a stream. **Tickler**, a book which contains a memorandum of notes and debts, arranged in the order of maturity. The collection Tickler contains a record of all time paper left with a bank for collection. The Discount Tickler is a book in which are entered all discounted notes or bills, arranged with reference to their maturity. Its object is to insure the presentation of paper for payment at the proper time.

TIDE.—The alternate rising and falling of the waters of the ocean, bays, rivers, etc. The law recognizes three kinds of tides: viz., high spring tides, spring tides, and neap tides. **Tide Water**, water which flows and reflows with the tide. **Timber Trees**, trees that are commonly used for building purposes, such as oak, ash, pine, etc.

TIME.—A particular portion of duration, past, present, or future. In computing time, the first day or month or year is excluded, and the last is included. When months are considered, they are construed to mean calendar months, by which is meant the time from one day in one month to the same day in another month. Notes or securities falling due on the 30th or 31st of any month which has only 28, 29, or 30 days in it, are considered to be nominally due on the last day of the month, and therefore legally due on the 3rd of the following month. For instance, a note dated Nov. 30th, payable 3 months after date, falls due on the last day of Feb., and three days of grace make it payable on March 3rd. Less than a month is reckoned at the rate

of 30 days to the month. **For** computing interest, 360 days are considered a year, or 30 days a month. **If** accurate interest is desired, compute the interest on a 360 day basis, then subtract 1½% of it. (See Interest Table—Index). **To** find the difference between two dates, see Business Time Tables—Index. **Time Bargain**, an agreement to buy or sell goods at some definite time in the future and at a fixed price. **Time Book**, a book in which are entered the names of workmen, their department of work, time employed, rate of daily wages, amount of wages for the month, and the total amount of the pay roll for this time. **A** time book is both a pay roll and a book of original entry, and as such, should be preserved as an essential part of the records of one's business.

FORM OF TIME BOOK OF PECK & HOLLMAN FOR THE MONTH OF MAY, 19....

Names.	Work.	1 16	2 17	3 18	4 19	5 20	6 21	7 22	8 23	9 24	10 25	11 26	12 27	13 28	14 29	15 30	31	Time.	Rate.	Amt's.	Total.
C. Crowe	Foreman	\	\	\	\	\	\	\	\	\	\	\	\	\	\	\	\	29	3 50	101 50	
Joe Fox	Engineer	\	\	\	\	\	\	\	\	\	\	½	\	\	\	\	\	29½	2 50	73 75	
Eli Dunn	Porter	\	\	\	\	\	\	\	\	\	\	\	\	\	\	\	\	31	1 50	46 50	
S. Hall	Laborer	\	¼	\	\	\	\	\	\	\	\	\	\	\	\	¼	\	28	2 00	56 00	277 75

TIME TO SUE.—See Limitation of Action. **Time Draft**, see Draft. **Tipstaff**, an officer of the court, who serves its process. **Tithes**, a right to the tenth part of the produce of land, of the stocks upon lands, and of the personal industry of the people. **Title**, an inscription put over a thing as the name by which it is to be known; a claim of right; the means whereby an owner justly possesses his property; the right of action which a plaintiff has. **Title Deed**, a document containing the evidence of the title of the owner of an estate. **Titles of Nobility**, the titles by which the highest (so-called) classes of society are distinguished. **The** Declaration of American Independence states as a self-evident truth, that all men are created equal; hence, any artificial division of the people into classes would be contrary to the fundamental principle of the government, accordingly, the Constitution declares that no title of nobility shall be granted by the United States or by any State.

TO-BOOT.—A part of the compensation. **Toft**, the site or piece of ground on which a house has stood; a messuage. **Toll**, a tax or duty imposed on travelers or goods passing along a bridge or a public road; a miller's compensation for grinding corn, wheat, etc. **Tonnage**, the carrying capacity of a ship or vessel; a duty or toll on vessels, or on goods carried upon the water. Tonnage duties are forbidden to the States, as they are a means of regulating commerce, which is a subject given entirely to Congress. **Tontine**, an annuity on survivorship, it being shared equally by several individuals, the equal share being increased by the death of successive annuitants until the whole goes to the last survivor, unless otherwise agreed upon by the original parties. **Took and Carried Away**, a necessary phrase in an indictment for simple larceny. **Tort**, a wrong or injury. **Tortfeaser**, a wrong doer. **To wit**, namely, or that is to say.

TOWN.—A subdivision of a county in the Eastern States. In the Western and the Southern States, the same division is called a Township. **Townships** are civil or congressional. A congressional township contains 36 sections or square miles; while a civil township varies in size, being sometimes smaller, and at other times larger, than a congressional one. The powers of a township are defined by the general laws of the State, and are: (1) to sue and be sued; (2) to hold and dispose of real and personal property for the public use of the inhabitants; (3) to make such contracts and orders as are necessary for the exercise of its corporate powers; (4) to make such by-laws as are necessary for managing its affairs, and for preserving peace and good order; (5) to raise money by taxation. **The** chief officers of a township are the Clerk, Assessor, and Trustees or Supervisors.

TRADE.—Any kind of dealing in the line of sales or exchanges; a general term indicating the condition of the market. **Trade and Commerce**, a phrase signifying inter-state and inter-national commerce—trade conveying the idea of home traffic, and commerce, that of an extensive and varied traffic. **Trade Discount**, an allowance from certain list prices, or from the amount of purchases, made to a dealer on account of a change in the prices, or on account of cash payments. **Trade-Mark**, a name, symbol, letter, figure, form, or device, put upon manufactured goods. They are acquired simply by use, by any citizen or foreigner. **The** object of a trade mark is to protect both the owner and the public against imitations of an article which has acquired a good reputation. **There** is no application made to either the State or National Government for the right to use them, but if used in foreign commerce, they should be registered in the Patent Office at Washington. **An** infringement of a trade mark is prevented by a suit against the infringer for damages, and for an injunction to compel him to cease using it. **Trade-Price**, the price at which goods are sold to those in the same trade. **Trades-Union**, a combination among workmen, having in view the settlement of the proportion which wages should bear to the profits of the employers, and the redress of grievances. **Trade Winds**, winds in or near the torrid zone which, north of the equator, blow from the north-east, and, south of the equator, blow from the south-east. So-called because of their advantages to navigators, and hence to trade.

TRADITION.—The transmission of events, doctrines, opinions, etc., from one to another, especially from father to son, through successive generations, by word of mouth. **Traitor**, one who betrays his trust, or is guilty of treason. **Transaction**, the act of buying or selling, whether payment is made at the time, or property is bought or sold on account. **Transcript**, a copy of an original writing or deed. **Transit Insurance**, insurance on transportations by land only. **A** single policy may cover both marine and transit insurance.

TRANSIRE.—A warrant from the custom-house to let goods pass. **Transitory Actions**, those which may be brought in one place as well as in another. **Transportation**, the act of conveying goods from place to place. (See Common Carriers). **Trans-ship**, to transfer merchandise from one conveyance to another. **Transit**, a conveyance or line of passage through a country. **Transport**, a ship employed to carry goods from one place to another, especially goods, stores, etc., for the government.

TRAVELER.—A commercial agent whose business is to travel for the purpose of receiving orders from merchants, collecting money, and representing their interests. **Traverse,** the act of denying; as, in traversing a return or a pleading, a denial of some matter of fact is alleged. **To traverse an indictment** is to plead not guilty, or to deny the indictment; also to postpone a trial to the following session. **Treason,** a breach of fidelity; **the** crime of a subject attempting in any way to overthrow the government, as by waging war against it, or of adhering to its enemies, giving them aid and comfort. **This** crime is punishable with death.

TREASURE.—A store of money in reserve, or a store of anything collected for future use. **Treasure Trove,** money, or gold, silver, plate, or bullion, found hidden in the earth or other private place, the owner of which is unknown. If the owner is found, it must be restored to him. **Treasurer,** a State officer who receives all money accruing to the State from taxation or otherwise; keeps all notes, bonds, or other securities belonging to the State, and pays out such sums as the auditor draws his warrant for. An officer whose duty is similar is elected in each county, and in many townships. **Treasury,** the place where the public treasure is kept. **Treasury Notes,** notes of various denominations issued by the government, and received in payment of all dues, except for duties on imported goods. **The** notes have comparatively no intrinsic value, and contain only a promise to "pay to bearer," or to "the bearer on demand," the amount for which the note is issued.

TREATY.—An agreement between nations, upon any subject; as, for peace, for war against some third power, concerning commerce, the mail, the return of escaped criminals, etc. **The** power to make treaties for the United States rests with the President, two-thirds of the Senate concurring. **Treaties** are negotiated; i.e., the terms are agreed upon by the agents of the two governments; and a copy of the articles of agreement is sent to each government to be ratified. **In** a treaty of peace, terminating a war, the contracting parties have no right to take up arms again in the same cause, and the government is bound to order and enforce the restitution of property captured subsequently to the conclusion of the treaty.

TRESPASS.—Any wrong or damage done, by force or violence, on the person, property, or relative rights of another; **un**lawful entry on the lands of another; a kind of action at law. **Tret,** see Tare. **Trial,** the formal examination of a cause before a judge by means of witnesses in a court of law, as to whether certain alleged facts or charges are true or false. **The** usual course of proceeding in a trial is: (1) the plaintiff's counsel opens the trial by briefly stating what the case is, and then examines such witnesses as he chooses, the defendant's counsel having the right to cross-examine each one; (2) this examination and cross-examination is made by the counsel asking questions which the witness must answer; (3) after the plaintiff has presented all his witnesses, the defendant's counsel, in turn, briefly states what his defence is, and examines his witnesses, the other side having the right to cross-examine each one; (4) the defendant's counsel then makes an argument upon the case, and the plaintiff's counsel closes with his argument. **This** ends the trial if it is before the court alone. If it is before a jury, see Suit for the remainder of the procedure.

TRIAL BALANCE.—In book-keeping, a test to ascertain whether the debit and credit sides of the ledger are equal. It does not prove the work to be absolutely correct, as errors may be made which will not affect the equality of the ledger, such as erroneous computations, errors in journalizing, posting to the wrong account, etc. However, if the footings of the Trial Balance are equal, it is generally accepted as proof that the work upon the ledger is correct.

FORM OF TRIAL BALANCE.

JANUARY 31, 19....

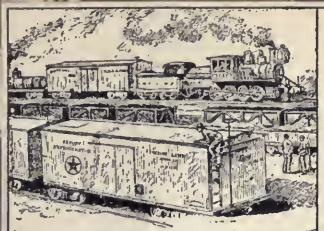
L.F.						
1	Proprietor,			4000	00	
2	Cash,	6718	75	3735	50	
4	Merchandise,	4775	00	3216	25	
6	Expense,	235	50			
7	L.S. Mitchell,			500	00	
8	M.L. Gunn,	400	00	1175	00	
8	Chas. Landers,	697	50	200	00	
9	A.P. Parker,	175	00	100	00	
10	Alex. Gibson,	125	00	200	00	
		13126	75	13126	75	

TRIBUNAL.—A court of justice, or the seat of a judge. **Triors,** persons appointed to ascertain whether a challenge to a panel of jurors, or to a single juror, is just. **Trover,** the obtaining possession of goods by finding them, or by various means other than by purchase; **an** action at law by the rightful owner to recover from the finder lost or strayed property, or to try a disputed case of property in goods or chattels. **Truce,** an agreement to suspend hostilities temporarily. **It** may be for a few days, months, or for years, and for any purpose. **The** government is bound to make retribution for prizes taken after its commencement.

TRUCK FARMING.—The growing and marketing of vegetables. It is carried on in favored localities at a distance from market, water or rail transportation being necessary. **If** carried on near local markets, the grower using his own team for transportation, it is called market gardening. **True Bill,** an indorsement which a grand jury makes upon a bill when they find it, being satisfied of the truth of the accusation.

TRUST.—An estate or right held by one party for the benefit of another. **When** it is desired to give one the income from certain property, but without the right to manage or dispose of it, as where a parent is providing for children too young to manage for themselves, the property is given to a third person, who is called a **trustee.** The powers of a trustee over the property are governed by the deed or will creating the trust, and are different in different cases. **The** position is one requiring perfect and good faith, the trustee not being allowed to do anything with the estate to benefit himself. **The** person for whose benefit the property is held has no power over it.

TRUSTEE.—A person who holds an estate or other property for the benefit of another. **Trustee-Process,** a process by which the goods of a debtor, in the hands of a third party, may be reached by an attaching creditor. **Tubman,** a barrister having a preaudience in the exchequer, and a particular place in court. **Turbary,** an easement; a right to dig turf. **Turf,** peat, or the fibrous, black, earthy substance used as fuel; **horse-racing. Tutor,** one who has charge of the estate and person of a minor. **Twelve Tables,** the earliest code of Roman law, cut on twelve bronze tablets.



BUSINESS TERMS.

ULLAGE.—What a cask lacks of being full. **Ultimo**, the last month preceding the present; as, on the tenth ultimo, meaning the tenth of last month. Abbreviated ult. **Unclaimed Goods**, any merchandise upon which duty has not been paid within the time which is prescribed by law, or which has remained in the government stores for three years after importation. Such merchandise is appraised, advertised, and sold at public auction as "unclaimed goods." **Uncurrent Money**, money which does not pass for its face value.

UNDERLEASE.—Another word for Sublease, which see. **Under Price**, below the regular price. **Under-Sell**, to sell at lower prices than those in the regular trade. **Undertaking**, a written obligation required by statute, and without any expression of a consideration. It need not be under seal. **Under-tenant**, one who holds by underlease or sublease (q.v.).

UNDERWRITER.—An insurer, especially one who insures vessels and cargoes. So-called because he writes his name under, and guarantees, the conditions of insurance. **Uniformity of Law**, a phrase having reference to law as based upon general principles. The laws of the different States, instead of differing greatly, are comparatively uniform; the differences being only in minor matters. The chief reasons for this uniformity are: (1) All law is supposed to be based upon the principles of right, whether political, civil, absolute civil, or relative civil; (2) All the law has the same historical origin; viz., the common law of England.

UNITED STATES BONDS.—Bonds issued for the funded loans of the Government. They are known by the rates of interest which they bear, and by the dates when they are payable or redeemable. **Currency Sixes** were made payable thirty years from their dates of issue, July 1, 1862, and July 2, 1864. They were all registered bonds of $1000, $5000, and $10,000, and bore 6% interest payable January 1 and July 1. **Five-Twenties**, redeemable in from five to twenty years, at 6% interest. **Sixes of 1881**, issued mostly in 1861, payable in 1881, at 6% interest. **Ten-Forties**, issued in 1864, redeemable in from ten to forty years, at 5% interest. **Seven-Thirties**, redeemable in from seven to thirty years, at 7 3/10% interest. **U.S. Pacific R.R. Currency Sixes**, issued to aid in the construction of railroads to the Pacific Coast, redeemable in thirty years, at 6% interest. **All** the above bonds, except the currency bonds, were made redeemable in coin, and the interest payable semi-annually in coin.

FORM OF UNITED STATES CURRENCY BOND.

Treasurer's Department. Register's Office.

:1000: It is hereby THE UNITED STATES 1862. ACT OF JULY 1, Certified that :1000: OF AMERICA ACT OF JULY 2, 1864.

Are indebted unto.....M. L. Walkerton,.....or Assigns, in the sum of One Thousand Dollars payable on the first day of January, 1897, with interest from the first day of January, 1879, Six per cent. per annum, payable semi-annually, in lawful money, on the first day of January and July in each year. This debt is authorized by Act of Congress, approved July 1, 1862, and July 2, 1864, and is transferable on the books of the office.

Entered, J.L. Washington, Feb. 24, 1879.
Registered, J.T.S. W. Wilcomb, Assistant Register of the Treasury.

PAYABLE IN 30 YEARS.

UNITED STATES NOTE.—A written promise to pay to the bearer on demand a certain sum of money, issued by the United States Government, and used as money. **Unity of Possession**, possession where one has several rights or estates in his own hand. **Unlawful Assembly**, any meeting of a number of persons, for the purpose of mutually assisting each other in creating a disturbance of the public peace, or the execution of some unlawful enterprise, with force and violence. **Unliquidated Damages**, open damages, or those not yet ascertained.

UNMERCHANTABLE.—Unsalable from any cause. **Unseaworthy**, not fit for a voyage. **Unsound**, any merchandise, the value of which is impaired. **Usage**, long and uniform practice. **Usance**, business custom which is generally conceded and acted upon; the time allowed by custom for the payment of bills of exchange. **Use**, a confidence reposed in another, who was tenant, or terre-tenant, that he would dispose of the land according to the wishes of the cestui que use, or to whose use it was granted, and suffer him to take the profits.

USUCAPTION.—The title or right to property acquired by the uninterrupted and undisputed possession of it for a certain time. **Usufruct**, the right of using and enjoying the profits of a thing belonging to another without impairing the substance or without alienating it. **Usufructuary**, one who has the use and profits of a thing.

USURPATION.—The act of seizing and taking possession of another's property or rights. **Usurper**, one who forcibly assumes the right of government, contrary to the laws of the country. **Usury**, the taking of more than legal interest for the use of money. In most of the States it is illegal to agree to pay or take more than a certain rate of interest, and no such an agreement can be enforced; i.e., a borrower cannot be compelled to pay more than a certain rate, even though he promises it. The theory with regard to usury has been that it injures the community as a whole. A penalty is inflicted upon the one who takes usury, the penalty varying in the different States, but generally is one of these three kinds: (1) the forfeiture of the usurious interest, i.e., all above the lawful rate; (2) the forfeiture of all the interest; (3) the forfeiture of both principal and interest. **Uterine**, born of the same mother. **Utter**, to offer; to publish. **Uxor**, a woman lawfully married.

VACATE.—To annul, or render void; as, to vacate an order of the court. **Vagabond**, a vagrant, or an idle fellow without a settled home. **Vagrant**, one who refuses to work, or goes around begging. **Valid**, of binding force; a term applied to a contract that is properly executed. **Value**, the amount of money people in general would pay for the property. **Valuation**, the estimated worth of a thing. **Value Received**, a phrase used in the body of a promissory note, or bill of exchange, to denote that a consideration has been given for it. The words are not generally necessary. **Valued Policy**, one which fixes the value of the property insured.

VARIANCE.—Disagreement between two parts of the same legal proceed-

ing, which ought to agree. **Vassal**, a tenant, or dependent; one who owes servitude to a superior lord. **Vendee**, one who purchases a thing, or to whom it is sold. **Vendition**, a sale, or the act of selling. **Vendor**, one who transfers the exclusive right of a thing for a price or pecuniary equivalent. Vend is applicable only to wares, merchandise, or other small articles, not to lands and tenements. **Vendor's Lien**, in equity, a lien which the vendor has upon property sold. The lien remains until the purchase-money is paid.

VENTURE.—A term used by seamen for adventure. **Venue**, in a legal proceeding, the county in which the facts are alleged to have occurred, and from which the jury are to come to try the issue. **Verbatim**, a term signifying word for word. **Verdict**, the decision of a jury reported to a judge, on the matters brought before them. If the jury cannot agree, they are discharged, and another trial may be had; but if they agree, they return to the court and announce their verdict. In most of the States all the members of a jury must agree before a verdict can be rendered.

VERIFICATION.—The act of proving to be true, applied to a writing; an averment under oath by the party making the pleading, that he is prepared to establish the truth of the facts which he has pleaded. **Vessel**, a ship in general. (See Ship). **Vest**, to place in possession; to invest, as with authority or right. **Vested Remainder**, after a particular estate is spent, an estate which is fixed to remain to a determinate person. **Vesture**, profit, or production of land.

VETO.—The right possessed by the executive power of a government to reject the laws or propositions passed or promoted by the legislative department. As the two houses of a legislature may concur in adopting an unwise measure, this additional safeguard is provided against the enactment of bad laws, by requiring all bills to be sent to the executive, as the President or a Governor, for examination and approval. If he approve a bill, he signs it, and it is law; if he does not approve, he must return the bill to the house in which it originated, stating his objections to it; and if it is shall be again passed by both houses, it will be a law without the executive's assent. In Congress and most of the State Legislatures, a vote of two-thirds of the members is necessary to pass a bill the second time.

VEY.—To view or see. **Via**, by way of; a cart-way, including a foot-way and a horse-way. **Vicar**, one who performs the functions of another; the incumbent of a benefice. **Vicarage**, the living or benefice of a vicar.

VICE-PRESIDENT.—The officer next in rank below the President. He is elected at the same time and in the same manner as the President, but by distinct ballots. His qualifications are required to be the same as those for President, and he is chosen for the same term. He is not strictly connected with the executive department of the government, having no executive functions, except he succeed to the presidency. He is more closely connected with the legislative department, being president of the senate, though he has no vote except in case of a tie-vote.

VICINAGE.—The venue; the neighborhood. **Vif-gage**, live pledge. **Village**, a small inhabited place less than a town or city, but larger than a hamlet. **Villein**, a servant or bondsman; a feudal tenant of the lowest class; one who holds lands by a base or servile tenure. **Vis**, force, violence, or disturbance to a man's person or property. **Vis major**, an inevitable accident; a superior force. **Void**, having no legal or binding force. **Voidable**, that which has some binding force or effect, but which may either be avoided or ratified by the party who has a right to annul it. **Voidance**, vacancy, as of a benefice; the act of emptying.

VOIR DIRE.—A preliminary examination of witnesses for the purpose of ascertaining their competency to testify. **Voluntary Conveyance**, the conveyance of an estate without any adequate consideration of value. **Vote**, suffrage; the number of voices given at an election. (See Qualifications for Voting). **Vouchee**, one called into court to make good his warranty of title. **Voucher**, a paper or document proving that some transaction occurred; as, a receipt or a canceled note is a voucher for the payment of money.

WAGE.—To give security for the performance of anything. **Wager**, a bet. **Wager of Battel**, the waging battle by the plaintiff with the champion of the defendant. **Wager of Law**, the act of discharging a debt by an oath taken by the defendant, that he does not owe the claim, in an action of debt supported by the oaths of eleven neighbors. **Waif**, a thing found, as goods, but claimed by no one; such as a thief threw away in his flight, in order to effect his escape.

WAIVE.—To abandon without right, to abandon or forsake a right; to outlaw a woman. **Waiver**, the act of one who waives; one who does not insist on some right or claim. **Wakening**, the act of reviving an action. **War**, an armed contest between nations or states. When two nations are at war all commercial intercourse between them is prohibited; hence, a contract made between a citizen of one nation and a citizen of another with which it is at war, is illegal and void.

WARD.—A certain division of a city or town; a person under age committed to the ward or care of a guardian. **Ward in Chancery**, a minor placed under the care of the chancellor. **Warden**, a guardian or keeper. **Ward Courts**, district courts in some large cities are so called. **Ward mote**, a ward court in London. **Wares**, merchandise of any kind. **Warehouse**, a store for goods, either for safe keeping or for sale. **Warehousing**, the act of depositing in a warehouse for safe keeping. **Warrandice**, a warranty, personal or real.

WARRANT.—A writ under seal, issued by a court to an officer, directing him to arrest an offender. **Warrant of Attorney**, a power given by a client to his attorney to appear and plead for him, or to suffer judgment to pass against him, by confessing the cause of the action to be just. **Warranty**, an engagement or undertaking that a certain fact regarding the subject of a contract is, or shall be, as it is declared or promised to be. An implied warranty is one which the law presumes every grantor or vendor to make when he disposes of property. An express warranty is one which binds the grantor and his heirs. A lineal warranty is one wherein the heir derived, or might have derived, his title from or through the warrantor. A collateral warranty is one wherein the heir's title neither was nor could have been derived from the warrantor. In every sale of personal property there is an implied warranty of ownership. In a sale if the seller warrants that the article is of a certain quality, or is suited to a certain purpose, and it does not prove to be such, he must suffer the loss. If there be no express agreement as to quality or fitness, the buyer must take the risk, for no warranty is implied. In a sale of real estate if the deed contain no covenants of warranty, the buyer must stand the loss, if some one else prove himself to have a better right or a prior claim to the property or any part of it. In insurance law it is a stipulation or engagement by a party insured, that certain things relating to the subject of insurance, or affecting the risk, exist, or shall exist, or have been, or shall be done; such as the stipulation in a policy of life assurance that the declaration as to health, etc., signed by the assured, shall become part of the policy; and in marine insurance, the perils of the ship's sailing, or the liability of the insurers for average claims. These warranties when express, should appear in the policy; but there are also certain implied warranties, as in other contracts. (See Guaranty).

WASH.—In the stock exchange, a pretended sale by special agreement between buyer and seller, for the purpose of getting a quotation reported. **Waste,** clippings, remnants, etc., of manufactures, many of which are valuable, and have a recognized place in commerce; that destruction or devastation of property which arises from exceeding the right of user. **Wastage,** loss in handling; shrinkage. **Waste-Book,** a book in which rough entries of transactions are made. **WATER BAILIFF.**—An officer whose duty it is to search ships in port. **Water Course,** a channel for the conveyance of water, having special reference to a running stream. (See Riparian Proprietor). **Water Level,** the level formed by the surface of still water. **Water-Logged,** lying like a log on the water, as a ship, when a large quantity of water has entered the hold. **Water-Mark,** a letter or device wrought into paper during the process of its manufacture. **Water Power,** water employed to set and keep machinery in motion. The riparian proprietor is entitled to the fall of a stream, when in its natural state, as it passes through his land, or along the boundary of it; that is, the water power consists in the difference of level between the surface where the stream first touches his land and the surface where it leaves it. (See Stream). **Water Proof,** so fine and close in texture as not to allow water to pass through.

WAY.—A route, passage, street, or road. There are four kinds of ways, viz.: a foot-way; a horse and foot-way, is also called a pack-way; a cart-way, including the two preceding; and a drift-way, which is a way for driving cattle. (See Highway, Private Road, and Right of Way). **Way Bill,** a document containing a list and a description of goods sent by a common carrier by land; it may also include the names of the passengers. When sent by water it is called a Will of lading. **Ways and Means,** an expression implying the resources of an individual or concern applicable for certain purposes, and the mode of applying them.

WEAR.—Injury or decay by use; a dam made across a river, accommodated for the taking of fish, or to convey a stream to a mill. **Wed,** an agreement or covenant; whence, a wedded husband. **Weight of Evidence,** an expression signifying that the proof on one side of a cause is greater than on the other. **Wharf,** the landing place for loading and unloading vessels. **Wharfage,** money paid for using a wharf, dock, or quay, for loading or unloading goods. **Wharfinger,** one who owns or keeps a wharf for the purpose of receiving or shipping merchandise to or from it for hire.

WHOLESALE.—To sell goods in quantity; usually in whole or unbroken packages. **Wholesale Dealer,** one who buyes his goods from first hands, and sells in large quantities to other merchants. **Wife's Equity,** the claim or right which a wife has to a suitable provision out of her estate, by settlement upon her, for the support of herself and children. (See Married Woman). **Will.**—The disposition of one's property, to take effect after the occurrence of death. As a general rule a person may dispose of all his property upon his death in any way he wishes, even to disinheriting his own children. The person making a will is called the testator. If no will is left, the person is said to die intestate, and the property is distributed among certain relatives according to law. As a rule every person of full age and sound mind may make a will, except married women in some cases. If upon the probate of a will, it is shown that the testator was of unsound mind, or was unduly influenced by any one, it will be declared void. A will must be made according to legal requirements, or it is void. It must (1) be written, except in case of soldiers in active service, or sailors at sea, and (2) it must be signed by two or more attending witnesses, in whose presence the testator must sign the will, or acknowledge that he signed it, and declare it to be his last will and testament. A testator may revoke or alter a will in any particular before death. It may be revoked (1) by burning, tearing, or otherwise purposely destroying it, or (2) by making a new will with the same formalities, expressly revoking the prior will. If a will is accidentally destroyed, and there is no intent to revoke it, it still legally exists. If a second will does not expressly revoke the former, both stand as far as they do not contradict each other, but the latter prevails where they are antagonistic. A codicil is an addition or supplement to a will, and must be executed with the same formalities. A will made by an unmarried woman is legally revoked by her marriage. Witnesses are not required to know the contents of a will, but simply to know that the document is a will, and witness the signing of the same by the testator. A testator may appoint his executors, but no one can serve if he be a minor, a convict, a lunatic, a drunkard, an imbecile, or an alien. One who is appointed an executor may renounce his appointment by legal written notice signed before two witnesses, which notice must be recorded by the officer before whom the will is proved.

FORM OF WILL.

I, James Armstrong, of the city of Indianapolis, in the county of Marion, and State of Indiana, being of sound mind and memory and understanding, do make my last will and testament in manner and form following:

First.—I give and bequeath unto my beloved wife, Jennie, the use, improvement and income of my warehouses, dwelling house, and lands, situate in White River township, Marion county, State of Indiana, to have and to hold the same to her for and during her natural life.

Second.—I give and bequeath to my daughters, Emily, Jane, and Edna, five thousand dollars each after they have attained the age of twenty-one years.

Third.—I give and bequeath to my son, Henry, two thousand dollars after he attains the age of twenty-one years; and I also give, devise, and bequeath to my said son, Henry, the reversion or remainder of my warehouses, dwelling house, and lands, situate in White River township, Marion county, State of Indiana, and all profits, income and advantage that may result therefrom, from and after the decease of my beloved wife, Jennie.

Fourth.—I also give, devise, and bequeath to my beloved wife, Jennie, all the residue of my estate, real, personal, or mixed, of which I shall be seized or possessed, or to which I shall be entitled at the time of my decease; to have and to hold the same to her and her executors and administrators and assigns forever.

Fifth.—I do nominate and appoint my brother, William Armstrong, to be the executor of this, my last will and testament.

In witness whereof, I hereunto set my hand and seal, this tenth day of September, A.D., 19....

James Armstrong. [L.S.]

Signed, sealed, declared and published by the said James Armstrong as and for his last will and testament, in presence of us, at his request and in his presence, and in presence of each other, have subscribed our names as witnesses hereto.

John Reams, residing at Indianapolis.
James Nolen, " " "

FORM OF CODICIL.

Whereas I, James Armstrong, did, on the tenth day of September, 19..., make my last will and testament, I do now, by this writing, add this codicil to my said will, to be taken as a part thereof.

Whereas, by the dispensation of Providence, my daughter, Edna, has deceased March 17, 19..., and whereas a son has been born to me, which son has been christened Robert Armstrong, I give and bequeath unto him five thousand dollars, bequeathed to my deceased daughter, Edna, in the body of this will.

In witness whereof, etc. (as in the form of a will).

Various clauses may be inserted in a will; such as relating to the cancelling of debts, etc.

WISBUY LAWS.—A code of marine laws, at one time the laws of the sea, compiled at Wisbuy, the ancient capital of Gothland. **Withdrawing a Juror**, in case it is improper that a cause should proceed, at the recommendation of the judge, one of the jurors is withdrawn, which ends the proceedings for the time. **Without Recourse**, words which are sometimes added to an indorsement by the indorsee, in order to avoid any personal liability, and that he may transfer the instrument and still have it retain its negotiability. **Without this, that**, words technically used in a traverse, which deny a material fact in the preceding pleadings.

WITNESS.—One who testifies under oath to what he knows; one who sees the execution of a deed, a will, etc., and subscribes his name to it to confirm its authenticity. **Workhouse**, a house where the poor are taken care of and provided with employment. **Working Day**, a day on which ordinary labor or business is carried on, as distinguished from Sunday. **Wreck**, the goods cast ashore from a ship that has broken up at sea. In England such goods belong to the crown. In the United States the various States have laws relating to property wrecked on the coast. **Wrecked Goods**, merchandise taken from a wreck, or picked up while floating on the water after the wreck of a vessel.

WRIT.—A legal instrument, issued by some court, directed to the defendant or an officer of the court, commanding him to do something therein mentioned touching a suit, action or proceeding. There are about two hundred different kinds of writs.

YARD.—An enclosure in which any work is carried on; an inclosed space of ground attached to a dwelling house for the use of its inhabitants. **Year**, the civil year contains 365 days, every leap year 366, and commences at the completion of 12 o'clock on the night of December 31 in each year. The astronomical year contains 365 days 5 hours 48 minutes 46 seconds of mean solar time. **Year and Day**, a term much used and recognized in law, meaning a full year. **Yeoman**, in English society, a grade next to that of a gentleman; a man of small estate in land. **Yielding and Paying**, a phrase expressing the reservation of rent in a deed or lease.

ADDITIONAL TERMS.

ABDICATION.—The renunciation of an office before the expiration of the term. **Abduction**, the act of fraudulently and forcibly taking away or detaining a man's wife or child. **Abjuration**, the act of renouncing by oath, of one's allegiance. **Abortion**, the premature expulsion of the contents of the pregnant uterus. **Absconding Debtor**, a debtor who goes out of the jurisdiction of the courts, in order to avoid their processes. **Absolutism**, that form of government in which the power is vested in one or more persons uncontrolled by any law.

ACCEPTOR.—The drawee of a bill of exchange, after acceptance. He is then the principal debtor, and responsible to all parties. **Accessary**, one who aids privily in committing a crime, when it is said to be before the fact. If he knowingly receives, relieves, or aids the felon, it is said to be after the fact. **Accessory Contract**, a contract made for assuring the performance of a former one. **Accumulative Judgment**, after the expiration of the first sentence against a convicted person, the commencement of a second. **Accusation**, the act of charging one with a crime.

ACQUITTAL.—The discharge of one accused of a crime. **Action**, a legal demand of one's rights. **Adult**, a person 21 years of age, according to common law; or a male 14 or a female 12 years of age, according to civil law. **Adultery**, violation of the marriage bed, by two persons other than husband and wife. **Affinity**, relationship by marriage. **Affirmative**, that which declares or asserts a thing to be true. In discussions the burden of proof generally lies with the affirmative. **Age**, see Full Age. **Aid Prayer**, a petition to a court asking help from another person, who is interested in the matter in dispute. **Alderman**, see Board of Aldermen.

ALIBI.—Being elsewhere at the time of the commission of a crime. **Alimony**, the sum allowed for the support of a wife who is separated from her husband. **Alluvion**, earth or other matter gained on a shore or bank of the sea or river, to which the owner of the land is entitled. **Ally**, a confederate. **Alteration**, any change in the terms of an instrument, which renders it void. **Amnesty**, a general pardon of offenses against a government. **Anarchy**, the absence of all political authority. **Apparent Authority**, the power which a principal has allowed his agent to seem to have, to act for him.

ARISTOCRACY.—That form of government in which only a privileged class of persons is vested with supreme power. **Arrest**, to restrain a person of his liberty by authority of law. **Arrest of Judgment**, the staying of judgment, on account of some error appearing on the record. **Arson**, the crime of wilfully burning any property. **Assassination**, the act of secretly murdering by violence or surprise. **Assent**, to agree. A proposition not assented to by both parties is not binding. Assent may be given by words, either oral or written, by acts, and sometimes by silence. **Assessor**, one who is authorized to fix the value of taxes. **Assessment**, the amount of tax laid on property.

ASSIZE.—A session or sitting as of a court; a sheriff's writ for the recovery of immovable property. **Assuming Mortgage**, the act of purchasing mortgaged property, agreeing to pay the mortgage. **Asylum**, a hospital for the insane, blind, deaf and dumb, inebriate, orphans, and others. Every State establishes and supports some of these. **Attorney General**, see Secretary.

BACK BOND.—A bond of indemnity given to a surety. **Balance of Power**, the endeavor not to permit any nation to have such a preponderating power as to endanger the peace or independence of the others. **Barrister**, one who pleads at the bar in a court of law. **Bastard**, one born of an illicit connection. **Benefice**, an ecclesiastical living or preferment. **Bigamy**, the state of having two or more wives or husbands at the same time.

BILL OF SIGHT.—A form of entry made at the Custom House when the importer of goods, or the person to whom they are consigned, does not know the exact description or quantity, by which form they are permitted to be landed for his examination, and then he makes a correct form of entry for the goods. **Bill of Entry**, a description of goods entered at the Custom House, whether imported or intended for exportation. **Bill and Note Broker**, one who acts for others in the buying and selling of commercial paper.

BLOOD MONEY.—Money paid to the next of kin of one who met with his death at the hands of another, accidentally or with premeditation. **Body Politic**, a state in its national or political capacity. **Bond-Creditor**, a creditor whose debt is secured by a bond. **Bond-Debt**, a debt contracted under the obligation of a bond. **Booty**, the spoils taken by an enemy on the land. If taken on the sea it is called a prize. **Bote**, an allowance or recompense. The expression 'to boot' is derived from this word.

BREVE.—A letter or writ on public affairs, by which anything is commanded to be done in the king's name. It is most frequently written "brief." **Brief**, a summary or abbreviated statement of the questions at issue. **Broker's Contract**, a paper signed by a broker, and sent to the person for whom he has bought or sold goods, immediately upon completing the bargain, describing the goods and the price, and conditions upon which they were sold or bought.

BUSINESS TERMS.

BULK.—In a mass or solid state, as pork in bulk, or bulk pork, pork not cut up or prepared for packing. Sale by bulk is a sale of goods as they are, without weight or measure. Laden or stowed in bulk is having the cargo loose in the hold, or not inclosed in boxes, casks, etc. **Canon Law**, ecclesiastical law for church discipline. **Capias**, a writ addressed to a sheriff, directing him to arrest and hold the defendant. **Capture**, the act of taking or seizing, by force, of property or persons by an enemy. **Carrier**, a person who undertakes to transport goods from place to place.

CARTEL.—An agreement between two belligerent powers for the exchange of prisoners; a challenge to a duel, or letter of defiance. **Cash Credit**, the privilege of drawing money from a bank, obtained by deposited or personal security. **Cashier**, one who has charge of money, as the clerk who superintends the books, payments, and receipts of a bank or company. **Catching Bargain**, an agreement with an expectant heir for the purchase of his expectancy at an inadequate price. **Caucus**, see Nominations. **Certiorari**, a writ from a superior to an inferior court commanding the return of certain records for the purpose of a review.

CHALLENGE.—In elections, the questioning of an elector upon his oath, in respect to his age, term of his residence, and his nationality. **In law**, an exception made to the jurors chosen to try a cause. **Charge**, a judge's instructions to a grand jury; the explanation by a judge to the jury of certain principles which they are to consider and apply in determining their verdict. **Civil Service**, the body of persons employed by the United States, from the Cabinet down to the lowest clerks in the Post Office, except the army and navy.

CLERK.—One engaged to write in an office, keep books, wait upon customers, etc.; an officer in a court whose duties are to attend its sessions, to preserve its papers, to keep a record of its proceedings, and to issue writs in its name. **Close**, an imaginary fence with which the law surrounds a person's property to protect his rights therein. **Cognation**, relationship existing between persons descended from the same father and mother. **Cohabit**, to live as man and wife, in the same house.

COMMISSIONER OF DEEDS.—An officer in many States before whom deeds are acknowledged. **Committee**, a number of persons appointed to consider and manage any matter. **Concord**, an agreement between parties who intend to levy a fine of lands; **an** agreement between two or more upon a trespass committed. **Conditional Sale**, an agreement between two parties that certain property belonging to one shall at some future time belong to the other, provided a certain thing does or does not take place. **Conditions of Sale**, the terms upon which it is proposed to sell property at auction.

CONDONATION.—The act of pardoning, as in divorce actions. **Confession of Judgment**, a confession in writing by a defendant of an action brought against him, to which he has no defense. **Confirmation**, an agreement which renders valid a voidable estate; also a kind of conveyance. **Conjuration**, the using of certain words or ceremonies in order to gain the assistance of some supposed superior power; a compact, made by persons under oath, to do some public harm. **Consent Rule**, a document in which the defendant confesses the lease, entry and ouster of the plaintiff, in an action of ejectment.

CONSTITUENT.—One who votes to elect a person to an office, with authority to act for him. **Contractor**, one who engages to perform any work or service for the public, or to supply certain quantities of materials or goods at a certain price. **Contumacy**, refusal to appear in court when summoned. **Convention**, see Nominations. **Conviction**, proving the guilt of one charged with a crime. **Council**, an executive body elected in some States to advise the governor. **Coverture**, the condition of a married woman.

CULPRIT.—One indicted for a criminal offense. **Cumulative Evidence**, additional evidence confirming that already given. **Curtilage**, the inclosed space surrounding a dwelling house; a court yard. **Curtis**, the space about a building. **Decapitation**, punishment by cutting of the head. **Declaration**, at common law, a plaintiff's statement of his cause of action. **Del Credere**, an agreement by an agent, in consideration of an additional premium or compensation, engages when he sells goods on credit, to insure, warrant, or guarantee to his principal the solvency of the purchaser, the true engagement of the agent being to pay the debt himself if it is not promptly discharged by the buyer. **Denizen**, one born an alien, but having letters-patent, giving him the right of a subject. **Deodand**, any personal chattel which has caused the death of a person, and for that reason is forfeited to the king. **Departments of Government**, the three departments of government are: (1) Executive, law-executing, represented by the executive officers, as the President and his Cabinet, Governors, etc.; (2) Legislative, law-making, consisting of the Senate, House of Representatives, and the Governor in some States; (3) Judicial, law-interpreting and law-applying, consists of all the judges.

DESPOT.—A tyrant or absolute prince. **Dictum**, an opinion expressed by a court. **Dilapidation**, decay or waste, especially when applied to ecclesiastical buildings. **Dilatory Plea**, a plea which may destroy a particular action, but not affecting the right of action of the plaintiff. **Diplomatics**, the science of ancient writings, and the art of deciphering them, determining their age, etc. **Disbar**, to revoke a lawyer's license. **Disclaimer**, a renunciation or disavowal. **Director**, an officer or trustee of a corporation; a member of a board of education. **Discounting Bills of Merchandise**, owing to unsuspected losses, discounts are frequently made in addition to the regular discounts. If an article is sold at a profit of 25%, and 5% is deducted from the selling price, it is not 20%, but 18¾%, because the discount is calculated on the selling price, while the profit is calculated on the cost. Also if 25% be added and 20% be deducted, the apparent profit is 5%, when in reality the goods are sold for cost.

DISMISS.—To remove or send out of court. **Dispensation**, the permission to do something forbidden; a relaxation of law. **Disseisin**, an unlawful dispossession of a person of his lands or tenements. **Document Bills**, bills with shipping documents for goods attached to them given as collateral security available if the bill should not be duly honored. **Domicil**, the place where a person has his permanent abode. **Dysnomy**, the act of making bad laws.

ELEGIT.—A writ directed to the sheriff, ordering him to make delivery of a moiety of a party's land and all his goods, beasts of burden excepted. **Elongata**, the return made by the sheriff in replevin, that the goods have been removed and cannot be found. **Eminent Domain**, see Domain.

FENCE VIEWERS.—Officers, usually supervisors or trustees, whose duties are to settle disputes between the owners of adjoining estates respecting partition fences. **Free Port**, a port where the ships of all nations may load and unload free of duty, provided the goods are not carried into an adjoining country.

NAMES OF MEN.

Aar'on (Heb.) Lofty, very high.
Ab'diel (Heb.) The servant of God.
A'bel (Heb.) Vanity, breath.
Abi'athar (Heb.) Father of plenty.
Abi'el (Heb.) Father of strength.
Abi'jah (Heb.) Jehovah is a father.
Ab'ner (Heb.) Father of light.
A'braham (Heb.) Father of a multitude.
A'bram (Heb.) Father of elevation.
Ab'salom (Heb.) Father of peace.
Ad'am (Heb.) Man, earth-man.
A'din (Heb.) Tender, delicate, soft.
Adol'phus (Sax.) Successful helper.
Adoni'ram (Heb.) Lord of height.
Al'an (Slav.) Harmony, a hound.
Al'aric (Sax.) All-powerful, all-rich.
Al'bert (Sax.) All-bright, illustrious.
Alexan'der (Gr.) A helper of men.
Al'fred (Sax.) Protecting all, all peace.
Al'lan, **Al'len** (Slav.) The same as Alan, which see.
Alon'zo (Ger.) Same as Alphonso.
Al'pheus (Heb.) Exchange.
Alphon'so (Ger.) Willing, all ready.
Al'vah (Heb.) Iniquity.
Al'van (Heb.) Unrighteous.
Al'vin, Al'win (Sax.) Conquering all.
Amari'ah (Heb.) Jehovah promised.
Am'asa (Heb.) A burden.
Am'brose (Gr.) Divine, immortal.
Am'mi (Heb.) My people.
A'mos (Heb.) Courageous, strong.
An'drew (Gr.) Manly, courageous.
Androni'cus (Gr.) A conqueror of men.
An'selm (Ger.) An heroic defender.
An'thony (Lat.) Praiseworthy.
Archela'us (Gr.) Ruler of the people.
Ar'chibald (Ger.) Boldness.
A'riel (Heb.) Lion of God, valiant.
Ar'nold (Sax.) Strong as an eagle.
Ar'temas (Gr.) Gift of Minerva or Artemis.
Ar'thur (Brit.) Noble, high.
A'sa (Heb.) Physician, healer.
A'saph (Heb.) A collector.
Ash'bel (Heb.) Fire of Bel.
Ash'er (Heb.) Fortunate, happy.
Ash'ur (Heb.) Black, blackness.
Augus'tus (Lat.) Majestic, exalted.
Augus'tine, **Aus'tin**, **Aus'tin** (Lat.) Belonging to Augustus.
Bald'win (Sax.) Courageous, bold.
Bar'nabas, **Bar'naby** (Heb.) Son of prophecy, or exhortation.
Barthol'omew (Heb.) A warlike son.
Bas'il (Gr.) Royal, kingly.
Ben'edict (Lat.) Blessed.
Ben'jamin (Heb.) Son of the right.
Beri'ah (Heb.) In calamity.
Ber'nard (Sax.) A brave man.
Ber'tram (Ger.) Bright raven.
Bethu'el (Heb.) Man of God.
Bon'iface (Lat.) A benefactor.
Bri'an (Celt.) Strong.
Cadwal'lader (Brit.) Valiant in war.
Cæ'sar (Lat.) Hairy, or blue-eyed.
Ca'leb (Heb.) A dog.
Cal'vin (Lat.) Bald.
Ce'cil (Lat.) Dim-sighted.
Charles (Sax.) Noble-spirited, manly.
Chris'topher (Gr.) Bearing Christ.
Clar'ence (Lat.) Illustrious.
Clem'ent (Lat.) Mild-tempered.
Con'rad (Sax.) Bold in counsel.
Con'stantine (Lat.) Firm, resolute.
Corne'lius (Lat.) Signification uncertain.
Cuth'bert (Sax.) Renowned.
Cy'rus (Pers.) The sun.
Dan'iel (Heb.) A judge from God.
Dari'us (Pers.) Preserver.
Da'vid (Heb.) Beloved.
Den'is, **Den'nis** (Gr.) Belonging to Dionysos or Bacchus, god of wine.
Dex'ter (Lat.) The right hand.
Dionys'ius (Gr.) The same as Denis.
Don'ald (Celt.) Proud chief.
Dun'can (Celt.) Brown chief.
Eb'en (Heb.) A stone.
Ebene'zer (Heb.) The stone of help.
Ed'gar (Sax.) Successful warrior.
Ed'mund (Sax.) Successful protector.
Ed'ward (Sax.) Guardian of property.
Ed'win (Sax.) Successful in war.
Eg'bert (Sax.) Bright eye.
El'bert (Sax.) All-bright, illustrious.
El'dred (Sax.) Terrible.
Elea'zer (Heb.) Whom God helps.
E'li (Heb.) A foster son.

Eli'ab (Heb.) God is his father.
Eli'as (Heb.) Jehovah is my God.
Eli'hu (Heb.) God the Lord.
Eli'jah (Heb.) Strength of the Lord.
Eli'sha (Heb.) God my salvation.
Eli'zur (Heb.) God is my rock.
Emman'uel (Heb.) God with us.
Ene'as (Gr.) Commended, praised.
E'noch (Heb.) Instructed, initiated.
E'nos (Heb.) Man.
E'phraim (Heb.) Very fruitful.
Eras'mus (Gr.) Worthy to be loved.
Eras'tus (Gr.) Amiable, lovely.
Er'nest (Ger.) Earnest.
E'sau (Heb.) Covered with hair.
E'than (Heb.) Strength, firmness.
Eugene' (Gr.) Noble, well-born.
Eus'tace (Gr.) Standing firm.
Ev'an (Brit.) Gracious gift of God.
Eze'kiel (Heb.) Strength of God.
Ez'ra (Heb) Help.
Fe'lix (Lat.) Happy, prosperous.
...dinand (Ger.) Brave, valiant.
Fe...nan'do (Span.) Same as Ferdinand.
Fran'cis (Fr.) Free.
Frank, Franklin (Fr.) Free.
...d'erick (Ger.) Peaceful ruler.
...iel (Heb.) Man of God.
...a'liel (Heb.) Recompense of God.
...of'frey (Sax.) Good protector.
...orge (Gr.) A husbandman.
Ger'ald (Ger.) Strong with the spear.
Gid'eon (Heb.) A destroyer.
Gil'bert (Sax.) Bright as gold.
Giles (Gr.) A little goat.
God'dard (Ger.) Virtuous, pious.
God'frey (Sax.) Good protector.
Go...win (Sax.) Good in war.
G...gory (Ger.) Watchful.
Grif'fith (Brit.) Having great faith.
Gusta'vus (Sw.) A warrior, hero.
Guy (Fr.) A leader.
Han'nibal (Punic) A gracious lord.
He'man (Heb.) Faithful.
Henry (Ger.) Rich lord.
H...r'bert (Ger.) Glory of the army.
H...r'man (Ger.) A warrior.
Hezeki'ah (Heb.) Strength of God.
...l'ary (Lat.) Cheerful, merry.
...i'ram (Heb.) Most noble.
Hor'ace (Lat.) Signification uncertain.
H...ra'tio (Lat.) Signification uncertain.
...ose'a (Heb.) Salvation.
...w'ell (Brit) Sound, whole.
...'bert (Sax.) Bright, handsome.
...gh (Dutch) High, lofty.
...mph'rey (Sax.) Protector of home.
...'abod (Heb.) Glory has departed.
...na'tius (Gr.) Ardent, fiery.
Immanu'el (Heb.) God with us.
In'gram (Ger.) A stalwart youth.
I'ra (Heb.) Watchful.
I'saac (Heb.) Laughter.
Isa'iah (Heb.) Salvation of the Lord.
Is'rael (Heb.) A soldier of God.
Ith'iel (Heb.) God is with me.
Ja'bez (Heb.) He will cause pain.
Ja'cob (Heb.) He will supplant.
James (Heb.) He will supplant.
Ja'red (Heb.) Descent.
Ja'son (Gr.) A healer.
Jas'per (Pers.) Signification uncertain.
Jef'frey (Sax.) At peace with God.
Jeremi'ah (Heb.) Exalted of the Lord.
Jerome' (Gr.) Having a holy name.
Jes'se (Heb.) Wealth.
Jo'ab (Heb.) Jehovah is his father.
Job (Heb.) Afflicted, persecuted.
Jo'el (Heb.) The Lord is God.
John (Heb.) Gracious gift of God.
Jo'nah (Heb.) A dove.
Jon'athan (Heb.) Gift of Jehovah.
Jo'seph (Heb.) He shall add.
Josh'ua (Heb.) Lord of salvation.
Ju'dah (Heb.) Praised.
Jul'ian (Lat) Belonging to Julius.
Jul'ius (Gr.) Soft-haired.
Jus'tin (Lat.) Just.
Ken'elm (Sax.) Defender of kindred.
Ken'neth (Gael.) Leader, commander.
La'ban (Heb.) White.
Lam'bert (Sax.) A keeper of lambs.
Law'rence (Lat.) Crowned with laurel.
Lem'uel (Heb.) Created by God.
Leon'ard (Sax.) Brave as a lion.
Le'opold (Ger.) Bold as a lion.
Le'vi (Heb.) Adhesion.
Lew'is (Fr.) Defender of the people.
Li'nus (Gr.) Flaxen-haired.
Li'onel (Lat.) A little lion.
Loren'zo (Ital.) Crowned with laurel.
Lot (Heb.) A veil, covering.
Lu'bin (Sax.) Beloved friend.
Lu'cius (Lat.) Born at break of day.
Luke (Lat.) Contraction of Lucanus.
Lu'ther (Ger.) Illustrious warrior.
Lycur'gus (Gr.) Wolf-driver.
Mal'achi (Heb.) Message of the Lord.
Marcel'lus (Lat.) Dimin. of Marcus.
Mar'cius (Lat.) Same as Marcus.
Mar'cus, Mark (Lat.) A hammer.
Mar'maduke (Sax.) A mighty noble.
Mar'tin (Lat.) Martial, warlike.
Mat'thew (Heb.) Gift of Jehovah.
Matthi'as (Heb.) Gift of the Lord.
Mau'rice (Lat.) Sprung of a Moor.
Mer'edith (Celt.) Sea-protector.
Mi'cah (Heb.) Who is like the Lord?
Mi'chael (Heb.) Who is like God?
Miles (Lat.) A soldier.
Mor'gan (Brit.) Born on the sea.
Mo'ses (Egypt.) Drawn out of water.
Na'hum (Heb.) Consolation.
Na'than (Heb.) A gift, given.
Nathan'iel (Heb.) The gift of God.
Neal (Lat.) Dark, swarthy.
Nich'olas (Gr.) Victory of the people.
No'ah (Heb.) Rest, comfort.
No'el (Heb.) Born on Christmas day.
Nor'man (Ger.) Native of Normandy.
Obadi'ah (Heb.) Servant of the Lord.
O'bed (Heb.) Serving God.
Octa'vius (Lat) The eighth born.
Ol'iver (Lat.) An olive tree.
Orlan'do (Ital.) Counsel for the land.
Os'car (Celt.) Bounding warrior.
Os'mund (Ger.) Protection of God.
Os'wald (Ger.) Power of God.
Ow'en (Celt.) Young warrior.
Ozi'as (Heb.) Strength of the Lord.
Pat'rick (Lat.) Noble, a patrician.
Paul (Lat.) Small, little.
Peleg (Heb.) Division.
Pe'ter (Gr.) A rock.
Philan'der (Gr.) A lover of men.
Phile'mon (Gr.) Loving, friendly.
Phil'ip (Gr.) A lover of horses.
Phin'eas (Heb.) Mouth of brass.
Pol'ycarp (Gr.) Much fruit.
Ptol'emy (Gr.) Mighty in war.
Quin'tin (Lat.) The fifth.
Ralph (Sax.) Helpful in counsel.
Raph'ael (Heb.) The healing of God.
Ray'mond (Ger.) Strong protector.
Reu'ben (Heb.) Behold - a son!
Reyn'old (Sax.) Strong ruler.
Rich'ard (Sax.) Rich-hearted.
Rob'ert (Ger.) Bright in fame.
Rod'erick (Ger.) Rich in fame.
Ro'dolph (Sax.) Aiding in counsel.
Rog'er (Ger.) Famous with the spear.
Ro'land, Row'land (Ger.) Fame of the land.
Ru'dolph (Sax.) Famous hero.
Ru'fus (Lat.) Reddish, red-haired.
Ru'pert (Sax.) Bright in fame.
Sam'son (Heb.) Splendid sun.
Sam'uel (Heb.) Heard of God.
Saul (Heb.) Asked for.
Sebas'tian (Gr.) Venerable, reverend.
Si'las (Lat.) Contraction of Silvanus.
Silva'nus, Sylva'nus (Lat.) Living in a wood.
Silves'ter (Lat.) Living in the woods.
Sim'eon, Si'mon (Heb.) Hearing with acceptance.
Solo'mon (Heb.) Peaceable.
Ste'phen (Gr.) A crown or garland.
Thad'deus (Syr.) The wise.
The'obald (Sax.) Bold for the people.
The'odore (Gr.) The gift of God.
Theoph'ilus (Gr.) A lover of God.
Thom'as (Heb.) A twin.
Tim'othy (Gr.) One who honors God.
Tobi'as (Heb.) Pleasing to Jehovah.
Tris'tram (Lat.) Grave, pensive, sad.
Ulys'ses (Gr.) A hater.
Ur'ban (Lat.) Courteous, polished.
Uri'ah (Heb.) Light of the Lord.
U'rian (Dan.) A husbandman.
Val'entine (Lat.) Strong, powerful.
Vic'tor (Lat.) A conqueror.
Vin'cent (Lat.) Conquering.
Viv'ian (Lat.) Lively, living.
Wal'ter (Ger.) Ruling the host.
Wil'liam (Ger.) Resolute helmet.
Win'fred (Sax.) Win peace.
Zab'diel (Heb.) Gift of God.
Zacche'us (Heb.) Innocent, pure.
Zachari'ah (Heb.) Remembered of
Zach'ary the Lord.
Zedeki'ah (Heb.) Justice of the Lord.
Zephani'ah (Heb.) Hid of the Lord.

NAMES OF WOMEN.

Abigail (Heb) My father's joy.
A'da (Sax.) Happiness, rich gift.
Ad'aline } (Ger.) A princess,
Ad'eline } of noble birth.
Ad'ela (Ger.) The same as Adaline.
Ad'elaide (Ger.) The same as Adaline.
Ade'lia (Ger.) The same as Adaline.
Ag'atha (Gr.) Good, kind.
Ag'nes (Gr.) Chaste, pure.
Alber'ta (Ger.) Feminine of Albert.
Alethe'a (Gr.) Truth.
Al'ice (Ger.) Noble birth, a princess.
Almi'ra (Ar.) Lofty, noble.
Althe'a (Gr.) A healer.
Am'abel (Lat.) Lovely, amiable.
Aman'da (Lat.) Worthy to be loved.
Ame'lia (Ger.) Busy, energetic.
A'my (Lat.) Beloved.
Angeli'na (Gr.) Angelic, lovely.
Ann
An'na } (Heb.) Grace, also the same as
Anne } Hannah.
Annette' (Heb.) French form of Anne.
Antoinette' (Gr.) Dimin. of Antonia.
Anto'nia (Lat.) Inestimable.
Arabel'la (Lat.) A fair altar.
Augus'ta (Lat.) Feminine of Augustus.
Aure'lia (Lat.) Feminine of Aurelius.
Auro'ra (Lat.) Morning, brightness.
Azu'ba (Heb.) Deserted.
Bar'bara (Gr.) Foreign, strange.
Be'atrice (Lat.) Making happy.
Ber'tha (Sax.) Bright, beautiful.
Blanche (Teut.) White, fair.
Brida'get (Celt.) Strength.
Camil'la (Lat.) Attendant at sacrifice.
Car'oline (Ger.) Feminine of Carolus.
Cath'arine
Cath'erine } (Gr.) Pure.
Cecil'ia (Lat.) Feminine of Cecil.
Ce'lia (Lat.) Feminine of Cœlius.
Celes'tine (Lat.) Heavenly.
Char'lotte (Fr.) Feminine of Charles.
Chlo'e (Gr.) A green herb, blooming.
Clar'a (Lat.) Bright, illustrious.
Claris'sa (Lat.) A variation of Clara.
Clementi'na
Clem'entine } (Lat) Mild, gentle.
Con'stance (Lat.) Constant, firm.
Co'ra (Gr.) Maiden, daughter.
Corde'lia (Lat.) Warm-hearted.
Corin'na (Gr.) Maiden.
Corne'lia (Lat.) Feminine of Cornelius.
Cyn'thia (Gr.) Belonging to Cynthus.
Deb'orah (Heb.) A bee.
De'lia (Gr.) Belonging to Delos.
Dian'a (Lat.) Goddess.
Dian'thа (Gr.) Flower of Jove, a pink.
Di'nah (Heb.) Judged.
Do'ra (Gr.) A gift.
Dor'cas (Gr.) A gazelle.
Dorin' da (Gr.) Same as Dorothea.
Dorothe'a } (Gr.) The gift of God.
Dor'othy }
Drusil'la (Gr.) Dewy eyes.
E'dith (Sax.) Happiness.
Ed'na (Heb.) Pleasure.
El'eanor (Sax.) All-fruitful.
El'inor (Sax.) Same as Eleanor.
Eli'za (Heb.) Contraction of Elizabeth.
Eliz'abeth (Heb.) Worshiper of God.
El'la (Gr.) Contraction of Eleanor.
El'len (Gr.) Diminutive of Eleanor.
El'sie (Sax.) Diminutive of Alice.
Elvi'ra (Lat.) White.
Em'eline } (Ger.) Energetic, indus-
Em'meline } trious.
Em'ily (Lat.) The same as Emeline.
Em'ma (Ger.) The same as Emeline.
Ernes'tine (Ger.) Fem. dim. of Ernest.
Es'ther (Pers.) A star, good fortune.
Eth'el (Sax.) Noble.
Eth'elind } (Sax.) Noble, well-born.
Ethelin'da }
Eudo'ra (Gr.) Good gift.
Euge'nia (Gr.) Well-born, noble.
Eu'nice (Gr.) Happy victory.
Euphe'mia (Gr.) Of good report.
Eva, Eve (Heb.) Life.
Evan'geline (Gr.) Bringing glad news.
Eveli'na
Ev'eline } (Heb.) Diminutive of Eva.
Fan'ny (Ger.) Diminutive of Frances.
Fausti'na (Lat.) Lucky.
Felic'ia (Lat.) Happy, happiness.
Fide'lia (Lat.) Faithful.
Flo'ra (Lat.) The goddess of flowers.
Flor'ence (Lat.) Blooming, flourishing.
Fran'ces (Ger.) Feminine of Francis.
Frederi'ca (Ger.) Feminine of Frederick.
Georgian'a (Gr.) Feminine of George.
Ger'aldine (Ger.) Feminine of Gerald.
Ger'trude (Ger.) All truth.
Grace (Lat.) Grace, favor.
Grisel'da (Teut.) Stone heroine.
Han'nah (Heb.) The same as Anna.
Har'riet (Ger.) Fem. diminutive of Henry.
Hel'en (Gr.) Light, alluring.
Henriet'ta (Ger.) Fem. diminutive of Henry.
Heph'zibah (Heb.) My delight in her.
Hes'ter (Pers.) A star, good fortune.
Hila'ria (Lat.) Feminine of Hilary.
Hono'ra (Lat.) Honorable.
Horten'sia (Lat.) A lady goddess.
Hul'dah (Heb.) A weasel.
I'da (Sax.) Happy, happiness.
I'nez (Gr.) Chaste, pure.
Ire'ne (Gr.) Peace, peaceful.
Is'abel
Isabel'la } (Sp.) Worshiper of God.
Jane (Fr.) Feminine of John.
Janet' (Fr.) Diminutive of Jane.
Jaq'ueline (Fr.) French feminine of James.
Jeannette' (Fr.) French diminutive of Jane.
Jemi'ma (Heb.) A dove.
Jeru'sha (Heb.) Possessed, married.
Jes'sie (Scotch) Diminutive and fem. of Jess.
Joan'
Joan'na } (Lat.) Feminine of John.
Jo'sephine (Fr.) Feminine of Joseph.
Joyce (Lat.) Sportive.
Ju'dith (Heb.) Praised.
Ju'lia (Lat.) Feminine of Julius.
Julian'a (Lat.) Feminine of Julian.
Ju'liet (Fr.) Diminutive of Julia.
Justi'na (Lat.) Feminine of Justin.
Kate (Gr.) Diminutive of Catharine.
Kath'arine } (Ger.) Pure,—the same as
Kath'erine } Catharine.
Ketu'rah (Heb.) Incense.
Kezi'ah (Heb.) Cassia.
Lau'ra (Lat.) A laurel or bay-tree.
Laurin'da (Lat.) Variation of Laura.
Lavin'ia (Lat.) Of Latium.
Leono'ra (Gr.) The same as Eleanor.
Leti'tia (Lat.) Happiness.
Lil'ian, Lil'ly (Lat.) Lily.
Lo'is (Gr.) Good, desirable.
Loui'sa
Louise' } (Fr.) Feminine of Louis.
Lu'cia (Lat.) Feminine of Lucius.
Lucin'da, Luci'na (Lat.) Shining, brilliant.
Lucre'tia (Lat.) Gain.
Lu'cy (Lat.) Feminine of Lucius.
Lyd'ia (Gr.) A native of Lydia in Asia.
Ma'bel (Lat.) Contraction of Amabel.
Mad'eline (Fr.) Same as Magdalene.
Mag'dalene (Heb.) Belonging to Magdala.
Mar'cia (Lat.) Fem. of Marcius.
Mar'garet (Gr.) A pearl.
Mari'a (Lat.) A form of Mary.
Marianne' (Fr.) From Mary and Anne.
Mar'ion (Fr.) Familiar form of Mary.
Mar'tha (Heb.) Sorrowful.
Ma'ry (Heb.) Bitter, star of the sea.
Matil'da (Ger.) A heroine.
Maud (Ger.) Contraction of Matilda.
Mehet'abel
Mehit'able } (Heb.) Benefited of God.
Mel'icent (Lat.) A sweet singer.
Melis'sa (Gr.) A bee.
Miran'da (Lat.) Admirable.
Mir'iam (Heb.) The same as Mary.
My'ra (Gr.) She who weeps or laments.
Nan'cy (Eng.) A familiar form of Anne.
No'ra (Ital.) Contraction of Honora.
Octa'via (Lat.) Feminine of Octavius.
Ol'ive
Oliv'ia } (Lat.) An olive.
Olym'pia (Gr.) Heavenly.
Pauli'na
Pauline' } (Lat.) Feminine of Paulinus.
Penel'ope (Gr.) A weaver.
Per'sis (Gr.) A Persian woman.
Phe'be
Phœ'be } (Gr.) Pure, radiant.
Philip'pa (Gr.) Feminine of Philip.
Phil'lis } (Gr.) A green bough.
Phyl'lis
Poi'ly (Eng.) Variation of Molly, from Mary.
Priscil'la (Lat.) Somewhat old.
Pru'dence
Pru'die } (Lat.) Foresight, prudence.
Ra'chel (Heb.) A ewe.
Rebec'ca (Heb.) Of enchanting beauty.
Rho'da
Rho'dy } (Gr.) A rose.
Ro'sa
Ro'sie } (Lat.) A rose.
Ros'abel
Rosabel'la } (Lat.) A fair rose.
Ros'alie (Fr.) Little blooming rose.
Ros'alind (Lat.) Beautiful as a rose.
Ros'amond (Ger.) Rosy lips.
Roxan'na (Pers.) Dawn of day.
Ruth (Heb.) Beauty.
Sabi'na (Lat.) A Sabine woman.
Salome' (Heb.) Peaceful.
Sal'va (Lat.) Safe.
Sa'ra
Sa'rah } (Heb.) A princess.
Seli'na (Gr.) Parsley.
Sere'na (Lat.) Feminine of Serenus.
Sib'yl
Sibyl'la } (Gr.) A prophetess.
Sophi'a
So'phie } (Gr.) Wisdom.
Sophro'nia (Gr.) Of a sound mind.
Stel'la
Stel'lie } (Lat.) A star.
Su'san
Susan'na } (Heb.) A lily.
Tab'itha (Syr.) A gazelle.
Theodo'ra (Gr.) The gift of God.
Theodo'sia (Gr.) The gift of God.
There'sa (Gr.) Carrying ears of corn.
Tryphe'na (Gr.) Delicate, luxurious.
Trypho'sa (Gr.) Luxurious, dainty.
Ul'rica (Ger.) Rich.
Ura'nia (Gr.) Heavenly.
Ur'sula (Lat.) A she-bear.
Vale'ria (Lat.) Feminine of Valerius.
Victo'ria (Lat.) Victory.
Vi'da (Erse.) Feminine of David.
Vi'ola
Vi'olet } (Lat.) A violet.
Virgin'ia (Lat.) Virgin, pure.
Viv'ian (Lat.) Lively.
Wilhelmi'na (Sax.) Feminine of William.
Win'ifred (Sax.) A lover of peace.
Zeno'bia (Gr.) Life from Jupiter.

NAMES OF MEN AND WOMEN

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